



IB7200 Connectivity VT2007

**West Bank and Gaza
Integrated Community Development Project**

Community information and communication centers

***Needs assessment, impact assessment, and component
proposal***

Excerpts from

Final Report

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Abbreviations

CD	Community development	LGU	Local Government Unit (= village council or municipality)
CDP	Community development project	MCT	multi-purpose community telecenter
DLL	Digital Leased Line	MoPT	Ministry of Post and Telecommunication
GICT	Global Information and Communication Technologies	NBK	National Bank of Kuwait
GSM	Global System for Mobile Communications	NGO	non-government organization
ICDP	Integrated Community Development Project	OECD	Organization for Economic Co-operation and Development
ICT	information and communication technology	PCBS	Palestinian Central Bureau of Statistics
IDRC	International Development Research Center	PDG	Palestinian Development Gateway
ISP	internet service provider	SIM	Subscriber Identity Module
IT	Information technology	UAE	United Arab Emirates
ITU	International Telecommunication Union	UNESCO	United Nations Educational, Scientific and Cultural Organization
LAN	Local area network	WBG	West Bank and Gaza

A. Introduction

1. In accordance with the Terms of Reference (Appendix 1) the author prepared and launched ICT needs and impact assessments in selected communities and held discussions with stakeholders and potential partners in West Bank and Gaza (WBG)
2. During the period September 3rd – October 8th 2001, needs and impact assessment were carried out in a sample of six communities (see Appendix 3) and institutional capacity assessments were carried out in 10 communities (see Appendix 4).

B. ICT and community development

B.1. Current ICT development activities in West Bank and Gaza

3. Most ICT development activities are concentrated at the national level or focus on urban centers such as Ramallah. West Bank and Gaza increasingly faces a triple divide: in respect to international comparisons, urban-rural disparities within the country and between the West Bank and the Gaza Strip, and with respect to gender. The ICT component under ICDP would aim to support ICT development in those parts of the Palestinian population currently deprived of such services. For more information about the political, socio-economic and regulatory environment, ICT infrastructure and some selected ICT development activities in West Bank and Gaza – see Appendix 5.

B.2. Definition of communities, role of Local Government Units (LGUs)

4. "The dominant entities in the local government system are the municipalities, which have well established service delivery and regulatory functions including electricity, water supply and sanitation, solid waste management, local roads, libraries, parks and recreation, fire abatement, slaughter houses, markets, land use planning and development and building approvals, and business and professional licensing. Village councils, which in some cases had populations and areas that compared to existing municipalities, are the next lower level of local government. They exhibited a representative government structure but lacked the broad range of functions and revenue raising options of municipalities. Among the earliest activities of the MoLG (Ministry of Local Government) was to upgrade a number of village councils to municipality status in order to provide them with revenues and representation that they did not previously enjoy. Villages without councils were and are the most numerous type of local government but are quite small-sized and administered by appointed mukhtars. Several have since been upgraded to village councils. Currently, there are 144 municipalities and 311 village councils."¹
5. The roles and responsibilities of Local Government Units (LGUs) are further described in Appendix 4.

¹ Source: West Bank and Gaza Intergovernmental and Municipal Finance Sector Study Report

B.3. Development impact of ICTs

6. "Knowledge has become the fundamental driver of increased productivity and global competition. Knowledge is seminal to invention, innovation and wealth creation. Information and communication technologies (ICT) provide a foundation for building up and applying knowledge in the private and public sectors. Countries with pervasive information infrastructures, robust policy frameworks and innovative ICT applications possess enormous advantages for sustained economic growth and social development."²

7. While further investments are necessary to meet basic needs in food, health and education, developing countries cannot simply afford to wait until they have met these needs before addressing development in the field of information and communication technology. Given the speed of development in this sector, there is a great risk that the gap between developed and developing countries will continue to widen if the emerging issues in ICT development are neglected. Working towards closing this digital divide at global, regional and national levels and with respect to gender equity represents a major task for the development community.

8. As communication networks are the crucial infrastructure of the global economy, ICT infrastructure, capabilities and knowledge will be a key strategic factor in business development and economic growth in the coming decades. It is not only the ICT sector itself, which will provide employment and economic growth, but this sector will enable business in other sectors, requiring ICT infrastructure, to be established and to grow. However, recent research has shown that ICT does not automatically guarantee a positive effect on sustainable development. While many cases show social and economic benefits, others do not show any difference or even have harmful effects. Assessments of ICT needs and possible impacts on communities, and strong participation of the beneficiary communities, are crucial to the successful design of ICT components in development project.

B.4. Community needs and priority position of ICT.

9. One may distinguish between two different categories of needs for ICT in communities, i.e., needs of:

1. the municipality, NGOs and population **in the concerned communities**, and
2. the government and other information and knowledge suppliers and processors, located **outside** the community, to reach the community with their services and collect information from the community.

10. The **community inhabitants'** needs for information, knowledge and communications in rural and deprived urban areas vary, depending on social and economic activities. There are nevertheless needs that arguably are rather ubiquitous. Thus, for example, the population in any community would generally need:

² World Bank, 2001. Information Communication Technology (ICT). Sector Strategy Paper. Draft: April 5, 2001. The World Bank Group, Washington.

- to communicate with relatives, friends clients and suppliers by phone, fax or email;
- information about job, and educational opportunities;
- education and vocational training;
- information and counseling regarding basic hygiene, health, (including health hazards, environmental issues and treatment of illnesses) and social issues (marriage, childrearing, etc.);
- access to records and registers (e.g. for housing and property registration, car registration, drivers license, business license, birth certificate, etc.)
- access to market information (and means of marketing their products)
- access to financial markets
- access to information about welfare programs;
- information about development plans and access to decision makers (local and central) to exercise their democratic rights;
- entertainment (e.g. video and computer games).

The **municipality or Local Governing Unit (LGU)** also have some general needs, e.g.:

- to communicate with central authorities, e.g. to supply information requested by the government, to make their needs known and apply for funding of development project, public services or welfare programs;
- information about central governments budgets for communities, development plans, and welfare programs and other public services offered by the government;
- to communicate with other neighboring communities in order to coordinate joint activities and achieve synergy and economies of scale;
- to “market” the community to the outside world (tourism), e.g. through a community website.
- to collect statistics from the inhabitants (e.g. census information, income, living conditions, occupation, etc.);
- to communicate with citizens in order to involve them in the democratic process, e.g. communicate development plans to them and obtain their feedback;

Locally active **NGOs** have similar needs to those identified above for the LGU.

11. Some of these needs do not necessarily require ICT support in small communities, where people can meet face to face. However, in all cases, access to phones are essential and access to email, Internet and data communication systems would clearly present huge advantages and improve the efficiency of the LGU.

12. Obviously users of ICT facilities, including the municipality staff, also need training in the use of such tools. This does not necessarily mean that the entire population of a community has to become computer literate. A human intermediary will initially be needed to assist those who are unable to use ICT to find the information they need or to enter information they supply.

13. Ideally the needs should be defined by the members of the community, themselves. Therefore, a survey of the needs for ICT was undertaken in 6 communities sampled from those proposed for participation in the ICT component of the ICDP (see Appendix 3).

These communities are of different size and represent different socio-economic, geographical and demographical conditions. The survey, by and large, confirms the needs listed above and identifies some additional needs for specific categories or target groups in the Palestinian context (see Appendix 3, Tables 1).

14. The needs are similar but not identical in all communities. A summary of the needs expressed in each of the 6 sampled communities is given in Appendix 3, Table 2.

15. The list of needs shown in Appendix 3 is by no means exhaustive. It is unrealistic to expect that people, who are unaware of the possibilities offered by ICT, are able to come up with all their potential needs for such technologies, in a short focus group meeting. In this situation the needs expressed by the community members will unavoidably, to some extent, reflect the analyst's experience and knowledge about potential use of ICT.

16. Only when the access to ICT and the skills to use these, as well as relevant content, is available to the community can one expect to get a better picture of the real needs based on an analysis of how the people use the facilities.

17. An assessment of the capacity of communities to manage ICT projects (and their institutional capacity in general), as well as of their capacity to contribute to the operation and maintenance of the project, was also made in a sample of 10 of communities (see Appendix 4). This survey also identified potential target groups and attempted to identify their needs for ICT. The needs for ICT identified in this survey are similar to those mentioned above (see Appendix 4 Section 6.1). The "most urgent needs" are summarized as follows:

18. Special consideration is paid to the needs of youth in the communities. The youth, who form about 60% of the community, are in need for multipurpose "[Tele-]centers to improve their abilities and living conditions. Cultural activities, computer skills, sports and public library are the main services required by both youth and their parents. A group visited in Jabalia extended the requests to establish sports clubs.

19. Difficulties in communication and movement between cities and Governorates (i.e. between North and South areas within Gaza Strip and most Governorates and villages in the West Bank) specifically during the last year have demonstrated that constructing information technology centers (MCTs) in different geographical areas of West Bank and Gaza is an urgent issue. Many groups within these local communities will be able to visit the nearest center and get the required information through the Internet facilities or public libraries.

20. Living conditions in different Governorates make it very important to establish training and awareness units to raise public awareness in terms of environmental and health issues. Local residents usually request LGs to help women and children through conducting training programs and workshops to improve their abilities and upgrade their skills.

21. The needs and requests of each community also vary according to category (youth, women or children), culture and place of residence (city, village or camp). See Appendix 4, Section F.2.2.

22. **The Government and other external information and knowledge suppliers and**

processors (including Universities) need to reach the communities with information about their services and products. Some of this information has also been identified by the communities as *their* need for information. Government-on-line could become a cost-effective way for the government to deliver its services, as well as to collect information required for general socio-economic statistics, records and registers, etc. Distance education and “telemedicine” may also become cost-effective as means for the government for delivery of public services, such as education and health care.

23. Commercial suppliers of services and goods needed in the communities would benefit from using ICT to deliver information about their products (marketing) and, possibly, at a later stage from doing transactions over the network (e-commerce).

24. The needs survey also attempted to assess the **priority** given to access to ICT in the communities. In all cases the concept of community telecenters was enthusiastically received by the people interviewed in the surveyed communities, who represented the major potential user groups. In most cases, it was not possible to reach a consensus about which type of information was most needed but, at least in two cases, focus groups agreed that “entertainment, education, health and agricultural information are the highest priority information needed in this governorate in descending order” (see Appendix 3).

25. Regarding the priority assigned to ICT, the Institutional Capacity Assessment (Appendix 4) concludes ...”that, in light of the current LG financial crisis induced by the current political turmoil, targeted LGs are unwilling to view MCTs³ as a high-priority service to be provided, unless a significant proportion of capital costs is donor-provided”. The assessment nevertheless indicates that the concept of Multipurpose Community Telecenters (MCT) was very well received by the people interviewed (including representatives of LGUs) and that most all of the communities “demand” the MCT and are prepared to provide land and, in some cases, buildings for an MCT. Some communities are also prepared to contribute to financing (part of) the operation and maintenance of the center (see Appendix 4, Table G7).

B.5. Benefits of ICT

26. Key to the impact of ICTs on development are not the technologies themselves, but the information they carry, the access to services they allow and, in particular, their potential to contribute to the development of human resources (capacity building) and enable citizens to participate in democratic processes. The potential benefits of ICT are huge in the Palestinian context, characterized by severe constraints in mobility, a large portion of the population geographically scattered in rural areas and with many Palestinians living abroad. Some of the anticipated benefits are summarized in Appendix 6.

B.6. Community Development in the West Bank and Gaza

27. In the last four years, the Palestinian Authority (PA) has tried to improve the availability and quality of economic and social services in municipalities, villages and,

³ MCT= Multipurpose Community Telecenter (see definition in section C below)

most recently in refugee camps, in the West Bank and Gaza (WBG) through the Community Development Project I and II (CDP). The overall objective of the proposed Integrated Community Development Project (ICDP) is to improve access to and quality of social and economic infrastructure services in poor and marginalized areas of West Bank and Gaza.

28. The ICT component of ICDP would support community development by improving access to, and the quality of, information and communication services for poor communities. It would particularly address the issue of economic and human resource constraints for the access to ICT in poor rural and urban areas through the provision of public access points for such technology and services.

29. It is **recommended** that this component take the form of a pilot project, including the establishment of some 15 “Multipurpose Community Telecenters” (MCTs), located in communities with different socio-economic characteristics and in different geographical location in the WBG. Definitions of different types of telecenters and justification for this recommendation are given in sections C and D respectively.

30. The main objective of the proposed MCT pilot would be to develop sustainable replicable models for such community telecenters and evaluate the impact of such centers on social, economic and cultural development. In some of the selected communities the MCT would piggyback on already on-going similar initiatives, which generally focus more narrowly on specific target groups, such as youth, women or refugees, upgrading their facilities and extending the range of services they offer. This was discussed with several potential partners in WBG, all of whom seem to embrace this idea.

31. The project would therefore work in partnership with a number of stakeholders (NGOs, International development agencies, Ministries of concerned occupational sectors and the private sector). An additional objective of the project would be to develop mechanisms for such multi-donor, multi-sectoral, private-public collaboration, based on the MCT platform.

C. Telecenter models

32. While all “Telecenters” are shared information and communication facilities, which make the cost per user significantly lower than individual subscriptions to telecom and Internet services, one may distinguish between the following three major types of “telecenters” (further described in Appendix 7).

➤ *Type 1: commercial telecommunication centers*

33. “Type 1 Telecenters” include public phones and other shared telecommunication and Internet access points, called, for example, Public Call Offices (PCOs), telekiosks, phone shops and “Internet cafés”.

➤ *Type 2: Multi-purpose community telecenters (MCT)*

34. Multi-purpose community telecenters have a mission to support community development by provision of access to ICT and to develop the inhabitants' capacity to use these. Another characteristic is that they endeavor to deliver a maximum range of public

as well as private services in order to share the cost of the infrastructure as widely as possible and, hence, improve economic and financial sustainability.

➤ **Type 3: Other Community (Tele-)centers**

35. Type 3 includes various “single-purpose” community centers, which are primarily established to deliver public services, including education and training, as well as community centers established to support community development in general. Examples of Type 3 (Tele-) community centers are: libraries (with, or without access to the Internet) and distance learning centers, located in schools or elsewhere. Type 3 also includes computer centers, with or without Internet access, established primarily for capacity building among members of specific target groups, such as women and youth.

36. In the West Bank and Gaza, there are many Type 1 telecenters and a number of initiatives, which may be labeled Type 3 (Tele-) centers. Many of them contribute to capacity building, community development and to reducing the “digital divide”, but their impact is limited and their sustainability questionable. By increasing the range of services provided by these, they could develop to fully-fledged MCTs and, thus, become more sustainable.

37. Of course, the MCTs do not exclude provision of access to individual subscribers. On the contrary, adding as many subscribers as possible makes the investment in telecom infrastructure more commercially attractive. New wireless local loop (WLL) technologies are emerging, which holds out promises of significantly reduced costs for such local networks. The MCTs will most likely play a role in marketing such services to individuals or enterprises who can afford their own facilities and could handle billing and repair services for the operator (which tends to be costly for them in remote areas).

38. MCTs, once replicated in many communities at the national level, also provide a support structure for implementation of other national and international initiatives aiming at providing access for specific applications, e.g. tele-education, tele-health and tele-trading in schools, hospitals and trade centers (Type 3 initiatives).

39. The question is not MCTs *or* other types of (Tele-)centers. They are complementary and one could very well imagine Type 1 and 3 Telecenters being upgraded to an MCT. It makes sense to build upon the already proven business model of PCOs and Internet cafés, because voice telephony and Internet are likely to provide major revenue stream also in MCTs.

40. Telecenter models may also be differentiated by ownership, and management structure and by locations (libraries, schools, extension centers, mobile units, etc.).

D. Recommended “standard” telecenter model for the West Bank and Gaza

41. Bearing in mind the needs identified, the MCT model (Type 2 telecenters) is considered to be the most viable model in the present Palestinian context, where a large number of people are unaware of the potential benefits of ICT and cannot afford access to ICT on an individual basis. As indicated above, MCTs can be expected to have

significant impact on economic and social development and are more likely to be sustainable than other types of telecenters established in marginalized areas. The services to be provided will depend on the specific needs of the community. This means that the MCTs will not necessarily be identical at all sites and that there is no unique model that is universally applicable.

D.1. Information, and other service to be provided

42. Some of the needs for information and services are indicated in section B.4 above and in Appendices 3 and 4. As pointed out, the needs survey did not necessarily capture all potential needs, as only those stated by the people met were recorded. Services will have to be adapted to the specific needs of each community, starting with those, which are high on the community's list of priorities and which can be most easily implemented (see Appendices 3 and 4).

43. One significant difference between an MCT and other types of (Tele-)centers is the "Multipurpose" aspect. Thus, MCTs should, by definition, offer more than just basic communication services, and, in particular, public services, e.g. library, and general information services and, in a longer perspective, tele-education, tele-healthcare, "government-, and community-on-line", depending on needs and availability of "content". The services to be offered will vary according to the local needs and will not necessarily be the same in a community dominated by agricultural activities as one where most of the population is employed in trading or public services, for example. Also ownership and management structure as well as location may vary. One can therefore imagine several different variations of the basic MCT model, e.g. models for:

44. Telecenters in agriculture-oriented communities

45. Telecenters in refugee camps

46. Telecenters in urban municipalities

47. Telecenters linked to educational facilities

48. Mobile telecenters

49.

50. Services to be provided in MCTs are further discussed in Appendix 7 section B.

D.2. Location, access and opening hours

51. The MCT should obviously be centrally located at an easily accessible place. To minimize construction costs it could be located in existing buildings, preferably LGU-owned buildings, such as community centers, cultural centers or public libraries. If convenient LGU-owned buildings are not available the MCT could also be located in for example schools or agriculture extension centers, extended and/or refurbished to accommodate the services offered by the MCT. The Needs Survey, as well as the Institutional Capacity Assessment identified possible LGU-owned buildings in most of the visited communities, but also some alternatives (see Appendices 3 and 4). The final

choice of location will have to be further negotiated with the concerned LGUs.

52. WBG is characterized by a considerable gender inequality with respect to educational levels and access to services, especially in rural areas. The needs survey also confirmed that telecenter design would need to provide for equal access to its services, e.g. by offering:

- separate rooms or different opening hours for men and women
- employ a sufficiently large number of female staff
- playground for children that women need to bring along to the center

to ensure the possibility of women to participate in the centers' activities and use their services.

53. Opening hours should be as long as possible (8 am to 10 pm, at least) to allow also working people to use the MCT after ordinary working hours and make maximum use of the facilities. All people in the community should have access to the facility but access could be based on timesharing; for example, women in the morning, youth, students and unemployed men and women in the early afternoon and working people in the evening.

54. Access could also be based on space sharing. For example, one area should be allocated for public access to phones, fax, photocopy and Internet, combined with library and documentation center, including local newsletter, published in the center and available for take-away. There would be one multimedia center dedicated to training and learning activities. Depending on the needs, there may also be room(s) for private business support. ("virtual office") and room(s) for video viewing, entertainment and social gatherings (possibly including a cafeteria). If telemedicine becomes an important application, a separate room for health related applications may be required. This may conveniently be located in a nearby health center, connected to the MCT, to ensure that patients are not mixed with the general public.

D.3. Building and facilities

55. The size of the building and facilities will vary, depending on the services provided. Building and facilities requirements are outlined in Appendix 7.

D.4. Staffing

56. Staff requirement, too, would depend on the services and the number of clients. A minimum requirement would be one MCT manager (who could also serve as an information officer and trainer, if time allows), one admin. assistant/information officer/trainer and one technical support/maintenance technician plus one security/cleaner, i.e. a total of four staff.

E. Ownership, institutional structure, management of MCTs

E.1. Local ownership

57. It is essential that the community takes ownership of the MCT, at least initially. This will ensure that the services provided meet the needs of the community and that the facilities will be well taken care of and less subject to vandalism or theft. The Local Government Unit (LGU) is the natural choice as owner of the facility. The LGU would supervise the MCT operation and take decisions about budget allocations. By the end of the pilot, the possibility of transferring ownership to the private sector should also be considered.

E.2. Management of MCTs

58. It is **recommended** that the LGU contract a manager for the MCT through local, and, if necessary, nation-wide competition. The MCT manager would be responsible for the day-to-day management of the center, including financial accounting and staff development and management. He/she should have management skills and experience of project management as well as of working with ICT facilities. He/she would be responsible to the LGU but also provide regular progress reports to the local steering committee.

E.3. Local steering committee

59. It is **recommended** that a local Steering Committee, composed of representatives of all local stakeholders and target groups, including women and youth, be established. This committee would oversee the activities of the MCT, and in particular review the monitoring and progress reports, and advice the LGU and the MCT management, particularly as regards services to be provided and the quality of those services.

60. Representatives of the communities visited by the consultants appear to fully support a local organization structure along the lines proposed above, with some variations (see Appendices 3 and 4).

E.4. Technical support

61. While routine maintenance should be the responsibility of each MCT, they will need technical advice on hardware and software, as well as assistance with higher-level maintenance (e.g. repair of faulty equipment). Some advice could be provided through the network of MCTs, which will act as a joint support group (see E.7. below). However, it is **recommended** that a suitable local company be contracted to provide these services to all the MCTs, at least during the period of the pilot.

E.5. National primary counterpart

62. The MCT pilot would be part of the ICDP initiative and as such fit into the structure and generally apply the procedures established for this project. One difference is that the

MCT pilot will be designed, including site selection, through the on-going consultative process, so the selected communities would only have to submit a request to the ICDP Steering Committee (or a subset of this Committee, possibly reinforced with some co-opted members from the ICT sector in the West Bank and Gaza), based on a pre-prepared project proposal, and indicating the local contribution.

63. It is **recommended** that there should be only one single national counterpart, who approves and signs the proposal, after consultation with the Steering Committee (instead of two as is the case for other CDP micro-projects). It is suggested that the Ministry of Local Government would be the most appropriate body to take on the role as national counterpart for the MCT pilot.

E.6. National forum for collaboration in ICT, with focus on the MCT pilot

64. While the creation of new institutions and organizations should be avoided as far as possible, it is essential to establish a mechanism for coordination among the international, national and local partners in the MCT pilot. To this end it is **recommended** to establish an electronic, *non-hierarchical* forum, where the partners exchange information about their various activities and coordinate their actions. This would include sharing of facilities and resources developed in the various “Telecenter” projects (not only among those where there is a direct collaboration within the MCT pilot). This would also be a forum for exchange of experience and sharing of evaluation data from the various projects and sites.

65. This forum would be open to any organization (public and private), which is active in the field of IT and ICT development, including both infrastructure and infostructure. Also individuals, with expertise in this field or in key positions, may be invited to join. The forum may be kick-started by a physical meeting among the key partners called jointly by the World Bank and the UNDP, for example. At the same time, the electronic forum will be established and people can join in the discussion. The Palestinian Development Gateway offered, during discussions with the mission, to develop, host, and provide technical support to such an electronic platform.

66. It is **recommended** that the activities of the forum participants, the collaborative process and the outcomes of the collaborative work be carefully monitored and evaluated during the MCT pilot. Bringing together different development agencies and the private sector to work together on a concrete project is a challenge, but the MCT pilot offers an opportunity to develop good practice models for how such cooperation can best be achieved.

E.7. Networking of MCTs

67. It is **recommended** that all the MCTs participating in the pilot be networked and share content and other resources developed, as well as experience and new ideas. This may be done through the above-mentioned forum at a space provided for this purpose, or through a separate electronic forum.

E.8. Options for organizational structure

E.8.1. Pilot versus full scale implementation

68. A full-scale implementation of MCTs in the majority of the localities of the West Bank and Gaza would probably bring about some significant economy of scale, especially if joint procurement, capacity building and support could be arranged for all of them. Moreover, it would accelerate the development of relevant local content, and provide access to ICT for the vast majority of the population. Hence it would bring about the potential benefits identified elsewhere in this report on a much larger scale.

However, the required investment would be well beyond PNA's present financial capabilities and it would be a high-risk investment, considering that the sustainability of MCTs remains to be proven. The private sector would have to contribute with the major portion of this investment. That the private sector invests in MCTs in rural areas is highly unlikely without any convincing evidence that the MCT concept is viable in the Palestinian context. Therefore, it is recommended to introduce this concept through a limited pilot project. The evaluation of this pilot will provide a basis for the Government and the private sector to decide if, and how to implement MCTs on a larger scale.

E.8.2. Franchising MCTs; public versus private sector initiatives

69. The options of private ownership and franchising the MCTs to the private sector has been considered. At this stage this solution could jeopardize the MCT community development goal, because private entrepreneurs do not necessarily have incentives to provide services to poor and marginalized people at reduced fees, for example. It has therefore been rejected for the moment. However, if, and when, the financial sustainability of the MCTs has been proven and an appropriate regulatory framework has been developed, this option should be considered, together with other options. The organizational "superstructure" described above is clearly needed during the pilot. However, at a later stage, one option could be to dismantle this and create a national consortium or corporation of MCTs, with centralized procurement, maintenance and training resources and franchised MCT operators.

70. Other options for ownership after the pilot period are private entrepreneurs, NGOs and local association and cooperatives (of farmers, for example). To explore the feasibility of the various options for a possible full-scale implementation would be an important task for the national forum for collaboration during the pilot project.

E.9. Role of the Palestinian Development Gateway (PDG)

71. As mentioned, the PDG has offered to host the MCT electronic forum and provide technical support and a moderator for this. It could also play an important role in stimulating content development, acting as a link between the MCTs and government and other information suppliers (demand-supply).

E.10. Development of an IT strategy – from action to strategy

72. There has been at least one unsuccessful attempt to develop an IT strategy for the West Bank and Gaza. The MCT forum, which brings all stakeholders together, offers an opportunity to learn from the experience made in the MCT pilot and use the knowledge gained to develop an IT strategy, suitable to the Palestinian environment. This pilot involves virtually all occupational sectors and address all the relevant issues, including policy and regulatory issues, as well as infrastructure and infostructure development in a concrete case.

E.11. Competition with the private sector

73. Care should be taken not to establish the (initially) subsidized MCT pilot centers where there is already a private operator offering similar services (e.g. an Internet café), or, if they are, that the MCT does not deprive these private enterprises of customers through unfair competition. In some of the proposed communities there are in fact one, or several Internet cafés already established. In these cases the LGU (or local Steering Committee) will have to ensure that they can compete with the MCT for this particular service on equal conditions. This may imply that subsidies aimed at enabling poor citizens to afford access to the Internet should be provided in such a way that they have they also apply to the existing Internet cafés.

74. Once the pilot has come to an end and if the MCT concept turns out to be an attractive business, the private sector is likely to come in wherever the demand exceeds the existing facilities' capacity. Private sector operators will indirectly benefit from the investments made in the MCT pilot as this will develop a market for ICT-based services and empower people to use such facilities.

F. Content sources, provision and development

75. An MCT facility without relevant content is like a railway without trains and will obviously not be sustainable in a longer perspective.

F.1. Content suppliers at international and national levels

76. At the *international* (and national) level, the Internet is a tool for accessing fabulous and rapidly growing information and knowledge resources, including distance learning material, health information, GIS, weather information, economic, social and cultural information, expert advice on a wide range of subjects, special interest groups, etc. Most of the web-based resources are in English but more information and knowledge resources in Arabic are being developed at a rapid pace (see section C.3.3 above).

77. At the *national* level, a number of on-going and planned initiatives will develop some of the content needed for government-on-line (GoL - see below). In particular, development of information systems and content in the area of health and education will be of great value for the MCTs. Further efforts will be required to make this content available online, e.g. distance education and forms-on-line, so that it can be accessed in the MCTs. The MCT pilot will empower people to make their needs known and create a

demand for GoL services. It could also serve as a test bed for GoL applications to be developed by the various Ministries and Government departments. Several Palestinian universities have already created their websites and are gradually developing content of interest to the MCT clients, e.g. educational opportunities, scholarships, application for courses and, soon, distance education.

F.2. Content development at the local level

78. At the local level it is **recommended** that the MCT pilot support capacity building and development of relevant content by assisting in the needs analysis, and by providing the training and the tools required. Examples of content and applications are job vacancies, profiles of people looking for a job, website development for e-commerce, information about entertainment, cultural and religious events, local inventions or indigenous knowledge, etc. In some of the communities visited representatives of locally active NGOs, women's associations, health workers and others expressed their willingness to contribute to content development (see Appendix 3 and 4).

G. Selection of telecenters pilot locations

79. The pilot nature of the MCT component under ICDP should allow for experimentation in differing environments. While this may result in failure at one or the other location (from which also lessons will be learned), unsuccessful pilots bear the danger of sending discouraging signals to the ICT development community. ICDP should therefore try to identify localities, which show a minimum of success potential. Key factors in this respect are the population (potential user group) size, physical infrastructure, and, above all, management and financing capacity of local institutions.

80. Other selection criteria and a description of the selection process are given in Appendix 8, which also lists and briefly describes the initially proposed locations.

81. The institutional capacity assessment revealed that most of the visited communities have the required infrastructure. However, maintenance is disregarded in many of them and many of them suffer from inadequate financial capacity and poor planning. Appendix 4 includes a number of recommendations for actions required to improve this situation.

H. Monitoring and evaluation

82. It is **recommended** that the MCT pilot focus on the following broad research questions:

- Does access to ICTs in rural areas contribute to social, economic and cultural development and, if so, how and what are the benefits?
- Are there any adverse effects and, if so, which?
- Do MCTs provide a sustainable way of providing universal access to ICTs and what are the conditions, which must be met to make them economically viable and replicable? If not, will they ever be and under which conditions? Are there other better ways?

- What are good practice models for the set-up, organization, management and operation of MCTs, under different conditions?
- What policies and regulations are required to promote the replication of such centers at the national scale, based on private sector investment?
- To what extent did the proposed national forum for collaboration achieve its objectives and how did it contribute to sharing of resources and to the development of a national ICT strategy?
- What were the key success factors and what were the reasons for possible failures of the MCT pilots and Forum for collaboration (lessons learned)

83. Further recommendations regarding monitoring and evaluation are given in Appendix 9. Reference is made to Ernberg, J., 1998. Integrated rural development and universal access - towards a framework for evaluation of multipurpose community telecenter pilot projects implemented by ITU and its partners. <http://www.itu.int/ITU-D-UniversalAccess/johan/papers/guelph.htm>, which also include a sample questionnaire for monitoring and evaluation.

I. Economic and financial analysis

84. It is impossible at this point to estimate, in monetary terms, the value of the economic and social benefits indicated above. Most of them clearly save travel time and costs, which could be estimated once the use of the MCT has been evaluated. As mentioned, the impact of the MCTs in terms of creation of jobs, reduction of crime, improvement of education and health, etc. should be evaluated during the pilot but this will need time.

85. The financial analysis of the MCT as a business made in Appendix 10 can only be very hypothetical at this stage, as little is known about the use the population will make of the MCT and how much they are willing (and able) to pay for the use of the facilities or for training offered through the MCT (see Appendix 10).

86. The rough estimates of costs and revenues, made in Appendix 10, indicate that the costs will not be recovered, unless the MCT also charges the information providers, including the government, who could also substantially benefit from using the MCT facilities. It would be logical to demand that information providers pay for making their contents available in the MCTs, if this generates business for them or save costs. The government and the community, for example, would then pay the MCT for using its facilities to deliver public services, such as distance education and telemedicine and GoL. This would be justified if it can be shown that the MCT is a cost-effective way to do this, which would enable the government and community to make savings elsewhere and improve their services.

87. Financial sustainability, a key parameter for the success of telecenters, would thus depend on the genuine, substantial, and long-term financial and organizational commitment of the community that owns the center.

J. Technical aspects

88. The technical solution should employ up-to-date hardware and software for the

facilities of the MCT. Adequate bandwidth and up-to-date IT equipment and facilities are essential, as the MCTs need to offer high-quality service in order to attract potential customers (including those who may have outdated computers at home). Computer hardware, SW and other IT equipment will therefore have to be replaced at short intervals (2-3 years). A bandwidth of at least 64 kbps but more likely 128 kbps, or more will be required initially.

89. For the connectivity there is a range of options, such as DLL, ADSL, optical fiber, VSATs (in combination with local wireless networks, when appropriate). The optimal solution will depend on existing infrastructure, geographical situation, bandwidth requirements and costs.

90. It is **recommended** that a study be made to determine the optimal solution for the connectivity in each case.

K. Project components and cost estimates

91. Major project components with cost estimates are outlined in Appendix 11. Below is a summary of the cost of these major project components

Project component	Estimated cost in kUSD
A Preparatory work (connectivity study)	100
B. MCTs (investment, incl. initial training of MCT staff plus 3 years AO&M)	2,558
C. Marketing and outreach	100
D. Local content development	540
E. Evaluation and Monitoring	100
Total estimated cost	3,398

92. The cost of component B could be significantly reduced if MCTs build on already existing telecentres and/or if the MCT start with a more modest set-up than the one proposed in Appendix 10.

93. The total cost will presumably be shared between the partners (donors, government, private sector suppliers of ICT hardware and software, LGUs and local stakeholders)

L. Proposed implementation arrangements

- LGU contracts ICT / telecenter experts to design location-specific telecenter
- LGU sends technical proposal, including costs, financing plan (indicating how the LGU intends to contribute to recover the recurrent cost), and M&E arrangements to ICDP Steering Committee

- ICDP Steering Committee - complemented by ICT experts - approves proposal
- Procurement, disbursement, and supervision of micro-projects would follow the general procedures and arrangements as defined for ICDP in general.
- The pre-selected communities / LGUs would be invited to prepare and submit such technical proposals, but the ICDP Steering Committee would reserve their right to replace any individual community in the case of their non-compliance with time and procedural agreements.

M. Recommended next steps

1. Organize a kick-off meeting of the core members of the Forum for collaboration, i.e. potential partners, such as development agencies, NGOs and Palestinian Government counterparts, as well as others involved in ICT activities, including PALTEL and interested private sector suppliers of ICT.

The main objective of this meeting should be to reach agreement with partners on the selection of sites and on who does what in each site where collaboration is possible. The meeting could be called jointly by the WB and UNDP, for example.

It is important that each potential partner come with specific information about their activities in the proposed sites, in order to enable the meeting to come up with specific and concrete proposals for what needs to be done in each case.

Assuming that the PDG has established the electronic workspace, this is where all partners from then on will share information and experience and collaboratively develop the implementation plans. If the first meeting does not meet its proposed objective (to produce specific proposals) this work could continue through the electronic forum, moderated by PDG, for example.

2. Survey existing telecom infrastructure and needs for upgrading of connectivity - select and prepare tender specifications for optimum technical solution - negotiate tariffs with PALTEL, for each proposed community. This will require consultants' services.
3. Prepare business plans for each proposed community (who wish to go along with this). The information obtained through steps 1 and 2 above now provides a basis for a more accurate estimates of costs in each case and how much donors will contribute to capital costs and AO&M costs.
4. Negotiate with partners on the basis of the business plan and develop partnership agreements.
5. Prepare the detailed project specification and implementation plan for each community - participatory and through the Forum when appropriate.

Appendix 1 - TERMS OF REFERENCE

West Bank and Gaza

Integrated Community Development Project

Community information and communication centers

Needs assessment, impact assessment, and component proposal

(May 21, 2001)

A. Background and Rationale

Despite some political progress in the peace process between Palestinians and Israelis since 1993, the economic situation of Palestine has deteriorated. Unemployment is persistent and has even increased since the recent flareup of hostilities between Palestinians and Israel. Physical and social service infrastructure has been neglected or actively destroyed and thus deteriorated, while continued political uncertainty has further discouraged investments. Social and economic development in Palestine is particularly constrained by the existence of two separated territories, frequent Israeli closures of roads and areas, geographical dispersion of the population, and lack of natural resources.

Over the last three years, the World Bank and other donors have supported short-term employment generation in small communities through public works rehabilitation projects, such as the Community Development Projects I and II. While these rehabilitation projects have increased short-term employment opportunities and increased capital stock in communities, the focus has been limited to specific sectors while other productive sectors such as agriculture and tourism have been largely neglected. The proposed Integrated Community Development Project (ICDP) will build on the success of these earlier projects but will now seek to integrate these other sectors into the project. As communication networks are the crucial infrastructure of the global economy, ICT infrastructure, capabilities and knowledge will be a key strategic factor in business development and economic growth in the coming decades. It is not only the ICT sector itself which will provide employment and economic growth, but this sector will enable growth in business opportunities in other sectors which require international standards in ICT infrastructure.

Palestinians presently have limited access to IC technology and services, especially in rural areas and in refugee camps. At present, only 2% of all Palestinian households have access to the internet, while this is the case for 23% of households which own a fixed phone line and a personal computer. The existence of fixed phone lines at home (and access to a PC) currently seems to limit access to the internet. although this may change in the future, given the high popularity of mobile communication in Palestine and the

possibility to access the web through mobile phones. But poorer groups of the population will still be left out for a while, thus increasing the gap between the "have"s and the "have-not"s within the country and in respect to Palestine's neighbors. Some public access points are currently given in cybercafés concentrated in urban areas, particularly Ramallah. It is the rural areas in the West Bank and the less developed areas in the (urban) Gaza Strip which lack access to communication technology and information.

The proposed project ICDP will therefore also include an ICT component which will aim at supporting community development through improving access to, and the quality of, information and communication technology and services through the establishment of telecenters in poor communities in the West Bank and Gaza. The term "telecenter" shall here be used for community information and communication centers in its most generic way for a multitude of concepts and models. The overall approach is rather flexible and only refers to a facility that provides public access to information and communication technology for educational, personal, social purposes or economic development, owned and managed by civil society or public institutions or by private enterprises. Such community-based information and communication centers would offer universal and equal access to its services. The specific services offered in these centers and the centers' organizational and financial structure would depend on, and be identified through, the expression of the respective communities' preferences and needs, which will be the subject of this study.

The Government would like to investigate which institutional and organizational setting and financial model are best suited to serve the objective of establishing an effective and financially sustainable structure of public information access. For this purpose, one international and two local consultants are sought to conduct a needs and impact assessment in selected communities and to suggest a telecenter model to be used in the ICT component under ICDP.

B. Objectives of the consulting services

The objective of the consulting services is to identify a technically feasible, socially acceptable and economically attractive model for the provision of community access to information and communication technologies and services in direct and flexible response to the beneficiaries' needs. The issues of information needs among community members, envisaged applications of such information and knowledge, and the organizational structure and financial sustainability of the telecenters will receive particular attention and coverage in the work and report.

C. Scope of work and responsibilities

The consultants will conduct their work within the framework of PHRD-financed project preparation and report to the Ministry of Local Government (MoLG), with the consultants' outputs being jointly supervised by MoLG and the World Bank (WB). They will prepare and organize the work load, collect and review existing documents, conduct all research and hold interviews in the West Bank and Gaza (and Israel) as necessary. They would work closely with governmental bodies like the CDP/ICDP Steering Committee, the national steering committee for IT strategy formulation, the Bank's local representatives and other major stakeholders in the field of ICT in the country. The

consultants will be responsible for the preparation of

1) an ICT needs and impact assessment in selected communities.

A draft list of communities to be included in the studies is anticipated to be received from the CDP/ICDP Steering Committee but will need to be verified upon arrival of the international consultant.

2) a draft concept of the ICT component within ICDP.

This concept shall be developed in a participatory process initiated by the consultants and involving representatives of the beneficiary communities, NGOs, the private sector including ISPs and PalTel, Government, research and educational institutions including Birzeit University, and the World Bank and other development partners.

The topics to be covered in these two papers shall include, but not necessarily be limited to, the following points (compare the separately provided "discussion and resource paper to facilitate component preparation"):

C.1 ICT environment

Recent ICT activities in Palestine, including the Palestinian Development Gateway initiative (PDG), the telecommunication strategy under preparation, activities and strategies by the National Institute for Information Technology (NIIT, established by PEC DAR) and any other ICT initiatives, including investments, and policies. (In which way) Does the current technical infrastructure (electricity, telecommunication, and information technology) constrain community access to ICT? Assess the need and (technical and financial) potential for solar-powered and satellite-connected telecenters. Compile services, coverage, quality, and prices of telecom operators and ISPs. Which national policies and regulations need to be in place in order to guarantee viable telecenters in communities?

C.2 Human resources profiles

in the beneficiary communities with respect to skills and capacities among both (potential) users and providers of ICTs (e-readiness), including educational levels, computer skills and foreign language capacities, and review household expenditure data where existent.

C.3 Community needs assessment

for the current and future anticipated needs for information and ICT services, including the willingness and capability to finance ICT activities and innovations.

Which information is currently used? At which costs? Is there demand for more or different information? Who needs information? Which information is needed? Where, when and what for is this information needed? Who can provide this information and

how? How is access to this information organized / practiced at present? What shall be changed / achieved? Who is going to benefit from ICT access (gender equality)?

C.4 Community impact assessment

Anticipated positive and negative project effects (ex-ante financial and economic analysis of development impact), assessment of unintended consequences.

C.4.1. Telecenter structure

What are the services which should be offered?

Which technology / equipment? Which information? Which services? Which education and training, for both telecenter users and staff? What kind of business support? Which social functions and other activities?

C.4.2. Who would provide and receive access and information?

Personal or public access, or access via intermediaries? Gender equality. Who would provide locally relevant information? Does this information exist and only need to be made available, or would telecenters need to create it? Socio-cultural aspects to be considered in telecenter design.

C.4.3. Where would access to ICT be provided?

In which villages or towns, and in which buildings in these localities should the telecenters be established? ICDP currently envisages to implement its sub-projects in two urban areas in the Gaza Strip and selected rural villages north of Jenin and south of Hebron. The consultants shall assess to which extent the ICT component shall be implemented in the same communities. If particular requirements for this component suggest to establish the telecenters in other communities, the consultants shall propose these locations and provide their reasoning.

C.4.4. How would access to ICT be provided?

Passive reception, interaction with persons, or self-service kiosk systems?

C.4.5. Ownership, management and financing

Should the telecenters be established and managed as a public or private sector initiative? How to guarantee non-selective universal access for the rural public, flexible response to changing needs of the beneficiary communities, and the maintenance of the technical equipment provided? How to avoid competition between the project's telecenters and private sector initiatives? What would be a viable financing model, including service charges and subsidy requirements? Would the private sector need financial incentives to provide services to sparsely populated areas? What is the appropriate mix of public and private resources for viable business plans for telecenters? What is the current and possible future role of NGOs in ICT support and development? The report shall recommend the most promising model as suitable for the local situation and outline the

reasons for rejection of alternative models. The assessment of the financial sustainability shall be based on a model of anticipated investment costs, operational costs including internet connectivity and maintenance, cost of telecenter personnel, cost of training of staff and users, cost of contents development if needed, revenues and their sources, and expected in-kind contributions.

C.4.6. How would the telecenters function?

What would business plans and operating manuals for the telecenters contain?

C.4.7. Monitoring and Evaluation

Which structural / organizational elements need to be in place to allow a direct and constructive dialogue between the beneficiary communities and service providers, in order to guarantee a flexible reaction to a changing demand in the communities? Draft list of indicators for measuring telecenter success. The M&E framework should capture the impact on both IT utilization and socio-economic development (such as skills development, income opportunities and income increases, gender equity, community empowerment, availability of locally demanded information). It should further identify the reasons for the preference or rejection of individual services and technologies.

D. Implementation arrangements

Not included

E. Specific tasks for the local and international consultants

Not included

Appendix 2 - List of officials met

Not included

Appendix 3

ICT needs and impact assessment

in a sample of 6 communities

in the West Bank and Gaza

Prepared by Johan Ernberg, Lead Consultant to the PNA, on the basis of assessment reports submitted by local consultants Aitemad Muhanna Mater and Taghrid M. Monjed Lahham

October 2001

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N. Introduction

94. The following 6 communities (2 in Gaza and 4 in the West Bank) were visited by Palestinian (local) consultants to the PNA, Aitemad Muhanna Mater (Gaza) and Taghrid M. Monjed Lahham (West Bank):

West Bank

Salfit (or Salfeet) / Salfit Governorate

Salfit is a village of 7103 people (census '97), located between Nablus and Ramallah, and endowed with good physical infrastructure.

Dura / Hebron Governorate

Dura, with a population of 15,503 (census '97). With its strategic location in the south-west of Hebron, it could also serve as a hub for several smaller surrounding villages which already today use Dura as access point for public services in health and education, and for commerce.

Ed Dhahjriya (or Ed-Dahryeh) / Hebron Governorate

Ed Dhahjriya, with a population of 20,548 (census '97), is located at the south-western tip of the West Bank. It is deprived of access to IC technologies and services and suffers

from limited physical mobility. As the area is characterized by a comparatively conservative population, the consultant hesitates to recommend that Ed-Dahryeh be included in the pilot.

Tubas Town Council / Tubas Governorate

Tubas is a small town with a population of 11,771 (census '97). It has a suitable infrastructure and a strategic location, where it could serve a number of Jordan valley villages that use Tubas as an economic and administrative center.

Gaza

Jabalia Refugee Camp / North Gaza Governorate

Jabalia is characterized by a large poor population with limited access and mobility. The total population of the camp and town was determined at 12,565 during the census '97.

Abasan Al Kabira / Khan Yunis Governorate

Abasan Al Kabira with a total population of 13,378 is located between Khan Yunis and the Green Line, the border to Israel. It is a comparatively agriculture-oriented village where agricultural and trade (export) information and services would be a major focus of the MCT pilot.

95. In these communities the consultants carried out focus group meetings with representatives of different target groups and stakeholders in the community. Questions asked in focus group meetings with representatives of the LGUs and the various target groups included:

- Who needs information?
- Which information is needed?
- Where and when is this information needed?
- Who can provide this information, where and how?
- How is access to this information organized / practiced at present?
- What shall be changed / achieved?
- Who is going to benefit from IT access and what are the potential benefits? (gender equality, savings, etc.)
- Where do people travel and for what purpose (birth certificate, training, trade, apply for courses or scholarships, register household, car registration, licenses, government benefits schemes, to see a doctor, entertainment, social meetings, etc.)?
- How often do they travel and what is average time required for travel?
- How could the travel be avoided and what would be the benefits of that – e.g. savings in travel costs (taxifares, gasoline, accommodations, food) and time?

96. The consultants also explored the communities' interest in the MCT and their priorities, what benefits they expected from the MCT and anticipated negative effects.

Furthermore, community representatives were asked about their views regarding the MCT management structure and staffing and location. They were also asked to what extent they might contribute to the financing of the MCT, in particular their possibilities to offer adequate land and buildings for the MCT. The issues of local content development and evaluation of the project were also addressed in the focus group meetings.

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O. Summary

97. The concept of the MCT was enthusiastically embraced by representatives of all sampled communities. All of them, except Ed Dhahjriya, appear to be suitable sites for an MCT pilot project.

98. A summary for all six communities of the needs **expressed by the participants in the various focus groups** is given in Table 1 below. Detailed description of needs and other issues discussed in meetings with LGUs and focus groups are given in the following field work reports.

Table 1. Summary of needs for ICT (and a Multipurpose Community Telecentre) assessed in 6 communities (Abasan El-Kabira, Dura, Ed-Dahryeh, Jabalia, Salfit and Tubas)

Category	Needs
Local branch of Ministries (when available)	(Computers), IT training, email with central ministries and info sources
Municipality	<ul style="list-style-type: none"> • IT training; • communication with neighboring communities; • web site with community info, and to "market" the community to donors; • GIS for community services; • directory on governance services, policies and procedures, • taxes for housing, construction, starting up businesses, cars, including procedures for applying for services, • directory on contractors; • procedures for bidding, • email communication with citizens, • access to research results for planning and programming
NGOs	<ul style="list-style-type: none"> •
Health workers (including NGOs in this sector)	<ul style="list-style-type: none"> • Health counseling and health education services
Farmers	<ul style="list-style-type: none"> • information relevant to their specific problem and their local context in a simplified way and in Arabic; • information on what to do and how to improve their productivity, • opportunities to market their products and to communicate with farmers in other parts of Palestine; • information about how to make feasibility studies, • information about the lending programs, banking procedures and how to get loans. • cheap phone calls with traders; • catalogues on equipment and seeds; <p>farmers also expressed that they need someone available all the time to help them to respond to their requests and opportunities to discuss their problems with the technicians and other farmers;</p>
Traders	<ul style="list-style-type: none"> • Communication with producers and markets abroad
Small business persons	<ul style="list-style-type: none"> • Names and addresses of wholesalers in Gaza, WB; • policies and regulations of products, pricing, marketing;

	<ul style="list-style-type: none">• export and import info;• info about market prices and competitors in the local market;• info about raw materials and their prices;• knowledge of how to make feasibility studies and how to get credits;• currencies rates
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Category	Needs
Youth and students	<ul style="list-style-type: none"> • Vocational training in skills related to the labor market, including IT skills and English language skills; • info about educational opportunities and scholarships; • networking with friends and other students in the world; • access to research and distance education; • entertainment (video, etc.) • fax and photocopy <p>The facility would help to keep youth from the streets and from drugs.</p>
Women	<ul style="list-style-type: none"> • Social, health and marriage counseling; • IT skills including website design, graphics and programming; education and awareness building; • networking with support groups in Palestine and other Arab countries. • training in secretarial and office management skills; • marketing of handicraft • a place where young women can socialize
General population	<ul style="list-style-type: none"> • Governmental services such as driving license issuing, statistics and banking services; • Email, social gatherings; • English language training. • Entertainment

99. The needs are similar but not identical in all communities as shown in Table 2 below, which indicates the needs **expressed by focus group participants** in each of the six communities.

Table 2 – Needs for ICT in 6 communities (4 in WB and 2 in Gaza)

Community	Salfeet	Dura	Jabalia	Abasan El-Kabira	Tubas and Ed-Dahryeh
Category					
Local branch of Ministries (when available)		(Computers), IT training, email with central ministries and info sources			(Computers), IT training, email with central ministries and info sources
Municipality LGU	IT training, communication with neighboring communities, webpage with community info, and to	Web page to “market” Dura, training in computerized admin system and GIS, Email	Directory on governance services, policies and procedures, taxes for, starting up businesses, cars, including procedures for applying for services, directory on contractors, procedures for bidding, email, GIS, research for		Web page to “market” Tubas, Communication with neighboring communities

	"market" the community to donors, GIS for community services		planning programming .	and		
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Community	Salfeet	Dura	Jabalia	Abasan El-Kabira	Tubas and Ed-Dahryeh
Category					
Health workers (including NGOs in this sector)		Development of Health counseling and education services			Development of Health counseling and education services
Small business Persons			names and addresses of wholesalers in Gaza & WB, policies and regulations of products pricing, marketing, export and import info, information about competitors in the local market, info about raw materials and their prices, how to make feasibility studies and how to get credits, currencies rates,		
Traders	Communication with producers and markets abroad				
NGOs			Development of relevant computerized information systems and web pages		

Community	Salfeet	Dura	Jabalia	Abasan El-Kabira	Tubas and Ed-Dahryeh
Category					
Farmers	Marketing products		Information on seeds, fertilizers, land, livestock and agriculture technology (techniques and equipollents	Information relevant to their specific problem and local context; in a simplified way and in Arabic, someone available all the time to help them to respond to their requests, information on what to do and how to improve their productivity, opportunities to discuss their problems with the technicians and other farmers, to market their products and to link with west bank farmers, how to make feasibility studies, information about lending programs and banking procedures. Cheap phone calls with traders, catalogues on equipment and seeds	Advice and extension service to improve their products and techniques , marketing channels for their products
Youth and students	IT training, networking by email with friends abroad	IT training, networking with others in the world, entertainment, education and health info	Vocational training, info about educational opportunities and scholarships, Networking with other students in the world, distance education, entertainment	Vocational training in skills demanded by the labor market, English language, info about educational opportunities and scholarships, Networking with other students in the world, access to research and distance education, entertainment, fax and photocopy	IT training, networking with others in the world,
Women	Counseling, health education, and services, computer skills	Education and awareness building, Counseling through chatting and networking with support groups in Palestine and other Arab	Social, health and marriage counseling, IT skills including website design, graphics and programming (young women). A place where young women	Social, health and marriage counseling	IT training, counseling, health education, and services,

		countries. Training in secretarial and office management skills, marketing of handicraft	can socialize		
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Community	Salfeet	Dura	Jabalia	Abasan El-Kabira	Tubas and Ed-Dahryeh
Category					
Small business Persons			Names and addresses of wholesalers in Gaza, WB, policies and regulations of products pricing, marketing, export and import info, information about competitors in the local market, info about raw materials and their prices, how to make feasibility studies and how to get credits, currencies rates,		
All	Local TV, entertainment, social gatherings, English language training	Distance education, access to scholarship information	Digital Video with educational films, reading room, fax and photocopy, Cafeteria, overseas phone calls		Governmental services such as driving license issuing, statistics and banking services Email, social gatherings, English language training. Entertainment, education, health and agricultural information are the highest priority information needed in this governorate in descending order

P. Field work reports

P.1. Abasan El Kabira (Gaza).

(based on assessment made by Aitemad Muhanna Mater)

P.1.1. Methodology

100. The following three focus group (FG) meetings were organized:

- 1 Focus Group (FG) with 8 farmers
- 1 FG with representatives of neighbourhood committees (6 men and 2 women, mostly employees in the different ministries).
- 1 FG with youth (10 students and graduates)

P.1.2. Needs for ICT

Farmers

101. Participants in the farmers FG recognized the importance of the proposed telecenter in developing their agriculture productivity. They first focused on the technical problems they encounter, namely:

- saltiness of their agriculture land the water
- poor quality of seeds and fertilizers
- difficulty to have access to the agricultural equipment
- lack of knowledge about how to fight crop diseases
- difficulties to market their products locally and internationally
- lack of knowledge about variation of agriculture products and how to maintain the fertility of the land
- lack of information about the lending programs that provide financial assistance to farmers to improve their production.

102. When the farmers were asked about where they got information from, and how, they responded that they got it from the ministry of agriculture and one or two agricultural NGOs. However, in their opinion, the technicians of these organizations don't have up-to date information and are very bureaucratic, which discourage them from seeking their advice. The farmers feel that it is not worthwhile to travel for 4 hours (in the current situation) from Abasan to Gaza to get information, which is mostly of little use. Moreover, the technicians are not always available. Farmers usually go to Khan Yonis or to NGOs which are working in the southern area.

103. With reference to their problems listed above, they found the idea of telecenter attractive, provided that the MCT provides:

- access to information relevant to their specific problem and their local context;
- information in a simplified way and in Arabic,
- support staff, who is available all the time to respond to their requests
- information not only on **what** to do to improve their productivity but also on **how** to do this
- opportunities to discuss their problems with the technicians and other farmers
- services at very low cost initially (at least until they see the results)
- facilities to market their products and to make link with west bank farmers
- knowledge about how to make feasibility studies for their own agriculture business
- information about banking procedures and how to get loans.
- inexpensive phone service to contact traders in Gaza and WB.
- catalogues on equipment and seeds.

104. The farmers' representatives showed their interest to be involved in the management of the center that would insure its continuity to help the farmers and would not be used for useless purposes in the future.

The neighbourhood committees' representatives

105. Participants in this FG showed their interest on the MCT concept, but felt that priority should be given to the farmers and the students. The Telecenter should indeed be for multi-purposes and target different groups in the community. The participants felt that particular attention should be paid to the needs of women and youth. One female participant stated that "women in Abasan are not involved in any social activities and the MCT would help them to socialize and to get information about:

- how to care for their children;
- how to solve behavioural problems faced by their children, and
- how to deal with frequent health problems, suffered by women children.

106. The participants pointed out that Abasan has many university students, who have difficulties to find resources and to get information for their academic studies. The school graduates are often confused about what and where to study. Therefore the MCT should give high priority to youth's and, particularly, students' concern. The participants also asserted that students' parents would be pleased to pay for information services related to education.

107.

108. The participants also mentioned that Abasan doesn't have any internet Cafes and youth are not encouraged to go to Khanyonis for this purpose because of the insecure situation. They worry about their childrens' level of education and expressed the hope that the MCT would help to

109. improve education, at least to develop their English language. They also suggested

that MCTs could be used for students' support during the exams time, when copies of test questions in different subjects can be typed, printed and disseminated at low fees/price. The telecenter also serves in securing youth from getting involved in drugs if the centre is managed and monitored well.

110. The participants of this focus group represent different social groups from the whole community. They expressed their commitment to promote the MCT and to convince people to pay fees for the services provided. The following opinions regarding charging the clients were expressed:

- annual, or six-months membership fees create more commitment
- individual fees for services should be lower than the private Internet cafes'
- one should ask for very low fees in the first year to encourage people to use the telecenter services.

111. With regard to the telecenters operation, FG participants suggested that it should preferable be open for women in the morning and for men and women in the afternoon and evening time.

Youth and students

112. Participants in this FG emphasized that their main priority is to develop their knowledge and skills in subjects related to their academic studies in the universities. They also mentioned that their studies are not relevant to the market demands, so they need to know practical information about business, management, marketing... etc. - of skills related to the job/labour market.

113.

114. The students also mentioned their need to have social contact with other people in the Arab countries to learn about other people's experiences. Schools graduates need to get information on the different universities in WBG, other Arab countries, as well as Europe and America (fees, academic system, application procedures, living cost).

115. The graduates emphasized their needs for information about jobs available in Gaza and on how to apply for these jobs.

116. The students also would like to use the Internet for entertainment (sports and music, for example) and to socialize with friends. They showed their interest to have such a center opened all the day. They need someone to help them to access different Websites and to show them how to use this new technology. The students suggested that the centers should also be used for faxing and photocopying.

P.1.3. Location, management and operation of the MCT

117. In all three meetings, there was an agreement to build up the center in the municipality building. The participants see it accessible for all people in Abase;

118. Participants suggested to manage the center through a management committee composed of the municipality (for operation and maintenance), representative of the community (two members of the neighbourhood committees, one woman and one man), representatives of different ministries and NGOs;

119. All decisions and policies, they felt, should be taken by this committee and the implementation should supervised by the municipality;

120. The running cost (staffing) of the telecenter should be covered by the World bank loan for the first year and then it should be planned from the beginning to make the center self financing;

121. The telecenter should be developed locally and mainly in Arabic. The idea of contracting a private IT company to develop the content under the supervision of the management committee is preferred;

122. The center should recruit two technicians/ one general technician/. One woman is preferable and one agriculture IT technician.

P.1.4. Evaluation

123. When people were asked about how to monitor and evaluate the Telecenter pilot, the participants suggested the following:

- the telecenter manager should write monthly report to the MC including No. of clients, type of information served, type of clients, demands, ease of people's access, No. of people who acquire useful skills.
- In addition to resolving problems and complains, the MC should follow up the regular progress reports and ensure that the Telecenter update the information and other content to meet the needs.

P.2. Jabalia (Gaza)

(Based on the assessment made by Aitemad Muhanna Mater)

P.2.1. Methodology:

124. The following four focus group meetings were organized:

- FG meeting with youth and their representatives (15 participants);
- FG meeting with grassroots organizations working in the sectors of women, human rights, disabled and youth (6 participants);
- FG meeting with small business owners (5 participants);
- FG meeting with the middle and senior staff of the municipality (10 participants/financial officer, engineers, Information System officer and service providers)

P.2.2. Needs for ICT

125. There was a great interest in the idea of the MCT amongst all groups interviewed.

NGOs

126. NGOs described the needs as follows:

- there is a great need to develop a computerized information system for the institutions themselves, where all information about economic and social services, national statistics, policies and legislation can be developed systematically in websites for the purposes of institutional research, planning and programming. Inclusion of such information in websites would also serve for promoting NGOs work and raising community civic education.
- the target groups of different institutions, particularly youth and women, will benefit from the telecenter by having access to different types of information from one place. This also facilitates community organizations to reach large number of people through the availability of information about these institutions in the telecenter.

127. This, as stated by the institutions' representatives, would gradually reduce the institutional promotional cost. Thus community institutions think that the development of the telecenter content, relevant to people's problems and needs should be given high priority.

Youth

128. With reference to youth's (male and female) needs for information, the NGOs' representatives and youth indicated the following needs:

129. Educated youth would be very interested in looking for jobs relevant to their skills. The ministry of labour and other institutions have to feed the telecenter with updated information on jobs available or planned for the future.

130. Telecenter would also provide vocational training opportunities for those who do not have high education (handicrafts, artisans, carpenters..etc).

131. Getting information about higher education, specialization and scholarships for studying abroad. In addition, to enable youth have contact with the outside world in a meaningful way.

132. Access to research relevant to academic studies in universities as well as to the core lectures of some courses through the Internet. This would help students, who can't attend all the lectures on time, to follow the courses. This need was identified by poor students, who work and study at the same time.

133. Youth also showed their interest to use the telecenter for entertainment while they live in a very deprived area with no social facilities.

Women

134. With regard to women's needs, women's organizations representatives mentioned the importance of IT for raising women's awareness on how to use contraceptives, how to raise their children, how to treat with health problems and how to manage their marriage life as well as to know about their rights. They also wanted social, and health counseling through the Internet.

135. Young female (students in secondary schools and universities) showed their interest to learn about IT and how to use it. They look for training courses not only on the basic skills of WORD, EXCEL, but more on technical skills requested in the local market like graphic design, websites design and programming. Young women also showed their interest to socialize through a public telecenter while its not yet acceptable to do this in private Internet cafes.

136. It was also agreed amongst NGOs and youth that the telecenter can be used for multi-purposes including:

- a large space for youth to set and read;
- a room for conducting workshops and training;
- a small shop for selling cassettes and CDs;
- fax and photocopier
- a messenger program to make phone calls with relatives abroad where the international calls are very expensive
- digital TV room where many educational channels have recently developed and very few families have access to digital in the camp;
- cafeteria where the whole place becomes like a social club, similar to YMCA in Gaza city.

Business owners

137. The business owners and the few farmers did not show high interest to talk about the telecenter in the beginning, but after explanation and presentation of examples on how to use IT to develop private businesses, they started to propose some interested ideas, such as:

- to get information about the names and addresses of wholesalers in Gaza, WB;
- to know about the policies and regulations of products pricing, marketing, export and import, if available
- to get information about competitors in the local market,
- to get information about raw materials and their prices in Gaza, WB and in Israel.
- to know who makes feasibility study and how to get credits
- To know about the different currencies rate
- To know about the new businesses established in Gaza strip.

Farmers

138. Farmers, as in Abasan, need information on seeds, fertilizers, land, livestock and agriculture technology (techniques and equipollents). The Farmers mentioned that there, is only one agricultural extension center in Jabalia and its not practical to go there frequently because it costs money and time. The farmers stated that they can only benefit

from the telecenter if it is closed to where they live and has technicians to assist them to get the information they need.

The municipality

139. Large number of head of departments attended the meeting and they were very interested on the idea of Telecenter. They first introduced what IT facilities the municipality has. With this regard, the head of Information department said that Jabalia municipality through the World Bank IDP 2, has developed an information system and web site for the municipality services.

140. This project was stopped because of lack of fund, they only have 3 PCs and 1 server and there is no budget for maintenance and updating. The municipality looks forward to continue with what have been achieved. The discussion then was raised on what the municipality need and how these needs can be met and the meeting came up with the following needs for information:

- Directory on the northern governance services, policies and procedures
- Website on different forms of taxes for housing, construction, starting up businesses, cars. This should also include the procedures for applying for the municipal services.
- developing an electronic system to collect the utilities fees from people
- to reduce the municipality operational cost, it would be very useful to develop a directory on all contractors and policies and procedures of bidding, as well as, to use the internet technology for advertising for bids.
- People in the community can use the telecenter technology (internet and e-mail) to send their complains on the municipality performance and to discuss specific problems relevant to the municipality responsibilities.
- to design maps for all social and economic services and infrastructures in the northern governance to serve different purposes:
- for developing the private business, research on micro and macro issues, in planning and programming .

141. The municipality staff mentioned that a telecenter with such services would serve in two directions:

- strengthening the trust between the municipality and people in the community,
- developing the capacity of the municipality staff performance.

P.2.3. Content, potential users and operation of the MCT

142. With all the group meetings conducted, the participants gave high priority to the content of the telecenter. The websites have to be in Arabic with a simple design to facilitate youth access to information by themselves. The municipality staff suggested to

develop the telecenter content by local expert in IT in order to insure its relevance to the local community values and tradition.

143. Potential customers: if the fees does not exceed 1.5 to 2 NIS/ half a dollar, it is estimated to have around 200 to 300 persons per day. 60 to % 70 of the telecenter clients would be youth (students and graduates).

144. Telecenter operation: it is suggested to have the telecenter open from 9 am. to 10 p.m. and to give 2 to 3 hours in the morning only for women. It is also preferable to have local staff from Jabalia to operate the center where there are enough technicians (men and women) who live in Jabalia.

P.2.4. Management of the MCT - potential stakeholders/partners

145. Regarding the management of the MCT the following opinions were expressed:

146. The MCT should not be managed by one organization. All stakeholders such as the municipality, NGOs, private sector, like IT consulting firm, should be involved as board members. Organizations suggested to be involved in the MCT management board, for example:

- Palestinian association for computer services
- Engineers union
- High commission of IT in Palestine (a government body)
- Jabalia municipality
- youth NGO
- women's NGO
- Islamic university (expert in IT)

147. It was suggested to recruit a very qualified manager in order to insure high quality of services provided to clients. The staff should also be motivated with good salary, especially the trainers or the service providers (technicians).

148. The MCT manager should, regularly (on a monthly basis), report to the head of the MCT board. The MCT board members should meet regularly to follow up the progress and to take action whenever required.

P.2.5. Location

149. The following options for location of the MCT were proposed:

150. Option 1: In the center of Jabalia camp, a second floor of the post office was

proposed to be used for the telecenter. It is 400 sqm and cost \$ 80,000 for construction. This place is very closed to refugee people in the camp.

151. Option 2: The municipality proposed a land of 2500 meter square, which is planned to be used as cultural center. This land needs to be constructed and the municipality has no budget for construction. The engineers mentioned that this place needs lots of money while the standard rate for construction is \$ 250 per meter square. This land is 400 ms far from the camp, ms far from the central clinic and 500 ms far from schools and the central market. All people in Jabalia city and camp can reach this place by walking. This place can be used not only for having access to information, but also as play ground for children and a social club for women.

152. Option 3: NGOs thought about the third floor of women's activities center that you visited during your mission in Gaza. This idea was not encouraged by women who participated in the group meetings, because it would mix men with women in one place, which is not yet socially acceptable.

153. It seems that the second option is the most appropriate for a multipurpose community telecenter.

P.2.6. Expected benefits and possible negative effects:

154. None of the groups' participants thought about negative effects of a telecenter if it is managed properly and the content is updated regularly.

155. Men and women emphasized that a telecenter with good content and management would not only help people to get information, but it has indirect benefits at the social and behavioral levels, such as:

- Protect young men and women from using drugs or having bad friends
- Learning new skills that can be transferred to adults who can't go to the telecenter
- Women strengthen their public relations and their communication skills
- The telecenter will help men and women to be acknowledged and skilled which help them to get better jobs
- The telecenter would open an opportunities for people to organize collective actions relevant to their community needs.

156. These indirect benefits should be considered during the monitoring and evaluation of the telecenter. The community should also participate in the process of decision making to insure the telecenter sustainability.

P.3. Ed-Dahryeh (West Bank)

(Based on assessed by Taghrid Monljed Lahham)

P.3.1. General information

157. Ed-Dahreyeh and its surrounding villages count 27,000 persons (living in Municipality boarders) and 10,000 in the 3 villages around. Ed-Dahreyeh falls midway of Hebron and Beir Saba'a (Beir Sheva') of nearly 22 Km south of Hebron City, and classified as "B" municipality by the MOLG.

158. The locality has offices of the Ministry of Interior, Ministry of Agriculture and the Ministry of Health. Most of the needed governmental services are issued in the town, however, people travel to Hebron for other services such as to issue driving license.

159. Ed-Dahreyeh municipality has the basic infrastructure services that can be used in the information and communication technology, such as electrical and telephone networks in addition to a post office as well as a PALTEL office.

160. Its economic depends mainly on working in Israel as 70% and on commerce for 30%. Its agricultural activities mainly concentrated in livestock fattening for commercial purposes. (The need for extension service work is high)

161. Ed-Dahreyeh town has no university although of the high demand for that, and its students mainly male-students leave to other cities for study especially to the closest city Hebron.

162. There are no banking services in Ed-Dahreyeh and usually they get such services from Hebron. There are plans to open a branch for "Palestine Investment Bank" very soon, which will serve also the nearby villages.

163. The health sector is not getting the necessary attention, and despite the availability of private and governmental clinics which provide the essential services, there is high need for health education programs. Involvement of NGOs is highly needed to build a democratic civil society, which is observed to be behind. Early marriages, and high school-drop out percentages are high especially for girls, in addition to high growth rate causes a lot of social problems and poverty and need health and other educational programs.

164. There is only Save the Children Federation (SCF) working in Ed-Dahreyeh to rehabilitate parts of the existing network. SCF has just started recently. There are no other working NGOs in the town.

165. Youth forms nearly 60% of the population, and the town has one youth club, with no activities for women.

166. There are two high schools one for girls and one for boys, as well as number of elementary and preparatory schools, still there are needs for other 52 classrooms especially for grade 1-4 due to high growth rate. During this semester only, the Ministry of Education has opened a new non-academic class in the girls' high school to teach commercial skills such as bookkeeping, and secretary skills. However, the headmistress expressed that there is no computers that can be used to train them, and thus this experience may become a failure if not supported.

167. The two high schools have computer centers however, with very old computers, of which some are not even working.

168. There is no Vocational Training center, which is raised as an urgent need. Some residents have offered the municipality 7.5 dunums to construct a Vocational Training Center. The municipality is seeking for funds to establish it.

169. Women in this tribal society need high support by donors and NGOs. The personal observation and discussions with women proven that women are completely controlled by a masculine society. There a high percentage of divorced young women, whom usually uneducated and at the same time have no jobs. Women lack the confidence and courage to express their opinions and needs. They are frustrated and unable to propose anything. They said clearly, when I asked them how they can benefit from this MCT, that whatever said will not change anything, men will control everything.

170. Unfortunately, this is also the case with men who are unable to express their opinions clearly in front of elder men. The social structure looks unpromising for any communal public services and individuals are not initiative enough to make changes.

P.3.2. Availability of IT

171. There are 2 Internet Cafés in Ed-Dahreyeh, with a good demand for the service from youth. The rate is 5 NIS/hr. There are no communication and service centers that provided photocopying and other similar activities and usually people get these services from Hebron or the nearby Dura town, which is 10 Km north of Ed-dahreyeh.

172. The municipality is negotiating with PALTEL to get a lease line, however, they found it expensive (US\$ 350/ month).

P.3.3. Approach

173. The field work consisted in three separate activities: 1) meetings with community leaders, 2) focus groups, 3) visit one of the Internet Café's, with the attendance of some the same interviewees as those participating in the focus group.

174. Separate meetings where held with :

- The Mayors and municipalities' representatives.
- The youth club manager.
- One owner of an Internet Café'.

The focus groups:

175. The focus groups were been selected to cover the point views of the different social groups and to represent the localities. The following three focus groups were organized:

- Public sector focus group: for the different ministries and other public sector representatives: Ministry of Education especially computer teachers and some school heads, Ministry of Agriculture, Mayor and other municipal representatives,

- youth club manager. Two of the Internet Cafés owners. The total number is 20 persons, including 8 women.
- Youth group of university and high school student (17-28 years old. 11 persons, including 1 girl student).
 - Women focus group: 5 women including 2 teachers.

P.3.4. Needs/ Findings:

176. The ministries lack the needed computers, and other communication facility such as faxes, and phones. Training to use the IT as well as E-mail connections to connect ministries themselves as well as with information data sources is a priority.

177. Attendees agreed on the need to develop a web page for Ed-Dahreyeh to market the town and reach donors.

178. The municipality is planning to establish a database for the town where data and statistics can be found. Updating of this database will be the responsibility of the municipality who will network with other associations working in the town.

179. The women focus group insisted on the importance of education and awareness programs especially those directed to women, to improve their quality of life ahead of having computers and other communication facilities and knowledge. Women lack the most essential services and thus see such MCT as a luxury. Even when I proposed the idea that they may use this center for their activities they said they will be unable to do so due to the current social concepts. They welcomed the idea to encourage NGOs and counselors to start social projects and awareness, however, early for computerized communication.

180. No women or girls have been in the Internet Café when visited, the supervisor says sometimes schoolgirls visit the place to prepare research but not often.

181. The youth forms nearly 60% of the population and are the sector, which has the higher interest to have MCT and a good access to information and communication technologies.

182. Entertainment and education are the most used and the highest priority information needed by youth in descending order.

183. Using the MCT for remote learning is an attractive idea for most of the people consulted. Having access to education, training and scholarships and immigration webs was highly expressed and also needed especially by youth and men.

184. Using and having access to E-mail services was also highly needed and expressed by most, for either the personal use or even to contact government and community representatives. School and university students expressed that such services are the most used by them.

185. Visa cards and E-commerce was not available or a priority.

186. English language level is not considered good and need development. Having

access to Arabic sources of information is highly preferred.

187. Youth need training to use the IT, awareness programs for their families and support by providing them with access to IT. They can use it for networking with other youth around the world.

188. In all cases training for users to access MCT services is highly requested, because of the limited skills in this aspect. School students explained that are highly interested in getting skilled in computer and Internet knowledge, however, they expressed that their access to school computers is difficult because of the limited number of old computers. They also expressed that even when they visit the Internet Cafés they fed-up to be connected due to the slow connection process.

189. Most of the students welcomed the idea of a cheap easy access to computer services, because their families cannot afford buying their own PCs.

190. Women also need to establish a women center and needs more motivated leadership that can make changes and support their development.

191. The management model has been a difficult issue to decide. The public sector focus group and men focus groups were passive to propose a system. To my surprise even young men who participated in the youth focus group and who proposed that the municipality is the best alternative were not able to say it when they have been asked as part of the men focus group. It seems the municipality is the best alternative despite my doubts of success.

192. All were convinced that the best system for such a MCT management to success is the private approach when a person is responsible for managing and make profit out of it. It seems the concept of sharing services is not mature yet, and thus nobody is convinced that this may be managed through a democratic approach.

P.3.5. Special Observations

193. Women sector are in need for high support socially, financially and technically to be motivated and mobilized through some of the active community based organizations.

194. The youth sector also need to be supported socially, financially and technically to build their capacities and to establish a motivated young leadership to turn the concept into success.

195. The municipality may do awareness and marketing of the MCT successfully.

196. The MCT can be used for remote teaching and vocational training successfully.

197. The social structure is not promising and has strong individual and tribal interest groups, which will prohibit and hinder adoption of new concepts and models. Therefore, the project will be unpromising in ed-Dahreyeh

P.3.6. Location

198. There is no constructed building that can be rented for this purpose in Ed-Dahreyeh town or the surroundings. However, if it is decided to build a new building the municipality is ready to contribute by providing the needed land.

199. Annual rent out of the commercial center for a 200-m² space is nearly 2,000-3,000 JD (Jordanian Dinnar: 1US\$~ 0.7 JD), while the building construction costs US\$ 45,000. Rent gets much higher in the commercial center of town.

P.4. Dura (West Bank)

(based on assessed by Taghrid Monljed Lahham

P.4.1. General information

200. Dura is the biggest municipality in a group of villages and towns located 12 Km south-west of Hebron City. Its population is nearly 30,000 persons; in addition to another 35,000 population distributed on 15 localities of which one is a municipality. Dura is the biggest municipality in this group and classified as "B" by the MoLG.

201. The municipality thinks that it should assist to develop the new neighboring local councils and municipalities, and plan to establish a training center to build their capacities, especially in the computerized administrative systems and GIS.

202. Dura municipality has the basic infrastructure that can be used in the information and communication technology, such as electricity and telephone networks as well as a post office and a PALTEL office.

203. Most of the main ministries such as the Ministry of Interior, the Ministry of Education, Ministry of Agriculture and others have directorates in Dura. Most of the governmental services, such as issuing of birth certificates and passport are usually done in the Ministry of Interior in Dura. The surrounding villages usually get most of such services from Dura and also have their principal commercial relationships with Dura town. The surrounding villages' people have to spend a maximum of one hour travelling to reach Dura to benefit from the above-mentioned services.

204. Dura's depends economically mainly on their inhabitants work in Israel, which contributes with 70% of the town's income. Agriculture, especially the livestock and irrigated agriculture, constitutes the remaining 30% of the income.

205. Dura town has a branch for al-Quds University for evening studies where nearly 600 students are studying, 90% of them are from Dura itself and the other 10% from its surroundings.

206. Dura municipality has already received the Ministry of Finance permit to open two banks: the Arab Bank and Palestine Investment Bank, which will serve also the nearby villages.

207. The health sector is growing in this municipality. There is a well equipped medical center that the municipality is planning to develop further. Also they are trying to secure funds to establish a hospital. Union of Palestinian Medical Relief Committee (UPMRC) and some other health NGOs are participating in the development of this sector.

208. Other NGOs, such as Save the Children Federation (SCF), YMCA, as well as UNDP are also active in Dura.

209. Recently, the youth sector has come into focus at the governorate level, and has attracted the attention of many local and international NGOs, especially the UNDP. Youth forms nearly 60% of the population. The municipality has two youth clubs, in addition to a cultural center equipped by 14 computers.

210. The municipality has already constructed a multi-purpose center of nearly 650 m², that has a library, the mentioned cultural center, a multi-purpose room that is equipped with needed sound and light installation, and they don't mind to supply it with a big screen. They also have plans and a land reserved to establish a green area, a park, kids outside games, and a football yard. Funds are not secured, and the municipality construct these parts gradually based on its available resources.

211. Most of the interviewed agreed that the MCT could be located in this center and that it should be managed through the municipality.

212. There is no Vocational Training center, which is considered an urgent need. YMCA and the municipality are negotiating to establish a Vocational Training Center to be used for training in the field of IT. Maintenance of computers and other electronic office installations such as photocopiers, and other similar equipment will be part of the training courses. The different focus groups are supportive and interested in such a center and do think that the proposed IT and Hi-Tech training will assist youth to develop their knowledge and skills and to generate jobs.

213. There is a newly established active women committee, that is looking to benefit from the MCT for remote learning, counseling and even marketing of their products. Women are highly skilled in the traditional handcrafts known in the village.

P.4.2. Availability of IT

214. There are 3 Internet Cafés in Dura, with a good demand for the service. The rate is 5 NIS/hr. There are 7 communication and service centers that provided photocopying and other similar activities, however, not sufficient and expensive.

215. The municipality is negotiating with PALTEL and another Israeli Communication Company to get a lease line, which will provide cheaper and faster service to customers.

P.4.3. Approach

216. The visit was planned to cover as much as possible of the available working ministries and municipalities, available NGOs, managers of the youth centers and women clubs/committees, as well as a special focus group for the youth (school and/or university students)

217. Thus, the visit included separate meetings with community leaders as well as focus groups.

218. Separate meetings were held with:

- The Mayors and municipalities' representatives.
- The regional planning committee of west Dura project coordinator/UNDP rural development project.
- The youth club manager.
- Some of the women committees leaders.

The focus groups

219. The focus groups were selected to represent the point views of the different social groups and localities as follows:

- Public Sector Focus Group: for the different ministries and other public sector representatives: Ministry of Education, Ministry of Labor, Ministry of Agriculture, Mayors or other municipal representatives, Women Leaders, youth centers managers. Representatives from the UPMRC, two of the Internet Cafés owners. The total number is 15 persons, including 8 women.
- Youth group of university and high school student (17-28 years old. 11 persons, including 7 girl students).
- School students focus groups of (10-16 years old), 12 student including 6 girl students.
- Women focus group: 12 women : 2 teachers and 10 housewives, different age categories.

P.4.4. Needs/ Findings

220. The ministries lack the needed computers, training to use the IT as well as E-mail connections to connect ministries themselves as well as with information data sources.

221. Attendees agreed on the need to develop a web page for Dura to market the town and reach donors.

222. The municipality needs to establish a training center on the needed computerized administrative systems and GIS to build the neighboring local councils capacities.

223. The women focus group insisted on the importance of education and awareness programs especially those directed to women, to improve their quality of life. Women

also raised their need to have counseling service through two approaches: chatting with a qualified counselor and by networking through a support group who shares the same problems in Palestine or any other Arab countries. Confidentiality is an essential demand for such services .

224. The representatives of the health working organization focused on the positive role that such an MCT can do, by helping them in reaching more beneficiaries through the web, to introduce counseling, health education and service, because of the existing high needs and their limited human resources. They also proposed to be data and content developers when come to health issues and education.

225. Dura town is the preferable place to be reached by every locality especially because the neighboring villages residenats are used to get their services through Dura.

226. Women or girls presence in the Internet cafés is very rare or non-existent. However, women started to be involved more in the computer training courses and are eager to learn and gain more computer knowledge. Internet knowledge and training is not the favorite topic for women in Dura, but women show great interest in secretary short courses, office management skills and similar training topics.

227. The youth forms nearly 60% of the population and are the sector, which has the higher interest to have MCT and a good access to information and communication technologies.

228. Entertainment, education, health information are the highest priority information needed in this area in descending order.

229. Using the MCT for remote learning is an attractive idea for most of the people consulted. Having access to education, training and scholarships was highly expressed and also needed especially by women. Early marriages was an important reason so as not to continue studying and therefore, women are eager to return back to learning. They expressed that remote learning for college studies will be a golden chance for them, especially because they have families and cannot study on regular basis. Nearly 40% of the women focus group are studying in al-Quds University for their BSc.

230. Using and having access to E-mail services was also highly needed and expressed by most, for either the personal use or even to contact government and community representatives. School and university students expressed that such services are the most used by them.

231. Visa cards and E-commerce was not available or a priority.

232. English language level is not considered good and need development. Having access to Arabic sources of information is highly preferred especially for women and school children. School students stated that the girl-students' English and even their computer skills are better than the boys'.

233. Youth need training to use the IT, awareness programs for their families and support by providing them with access to IT. They can use it for networking with other youth around the world.

234. In all cases training for users to access MCT services is highly requested, because of the limited skills in this aspect. School students explained that are highly interested in getting skilled in computer and Internet knowledge, however, they expressed that their access to school computers is difficult because of the limited number of old computers. They also expressed that even when they visit the Internet Cafs' they fed-up to be connected due to the slow connection process.

235. Most of the students welcomed the idea of a cheap easy access to computer services, because their families cannot afford buying their own PCs.

236. Most of the interviewees support the idea of multi-purpose centers, which can serve more than one sector and target group.

237. It is needed to support the women access to such services (mainly the Internet) by providing special (time or rooms for women only) which will encourage the families to allow their daughters to join.

238. Also technicians have to be of both genders to support the women access.

239. Women also needs to establish a women center and they showed great interest that they also can produce and market handicrafts through this center and via the internet if are supported technically and financially. Women need for micro credits and training to manage such credits and activities seems high

240. All attendees think that this telecenter should also be used for social gathering, and English teaching especially for youth through their leisure time.

241. Women group showed interest to run a cafeteria where they can socialize, market their processed food and even find temporary and part-time jobs for their elder children.

242. The management is seen to be through an elected board of trustees who will present most of the localities, and in turn will be responsible to hire the manager and the technicians and other needed staff. Dura municipal council is also seen as an agreed upon party.

243. The day-to-day management is to be the responsibility of the manager who will report and be monitored by the board of trustees or the municipality. It is agreed by the attendees that this MCT need to be equipped by 40 computers and 2-4 technicians of whom 50% should be women, in addition to 1 scanner, 3 phone lines, 1 fax line in addition to photocopier, etc.

P.4.5. Special Observations

244. Women are highly active, cooperative and eager to participate in such activities.

245. Awareness and marketing of the MCT may be done successfully by women who can talk to both men and women.

246. The MCT can be used for remote teaching and vocational training successfully.

247. The social structure is neutral, with no strong tribal influence, due to the strong

family relationships between Dura town and its surrounding localities.

248. The project will be promising in this location.

P.4.6. Location

249. Dura municipality multi-purpose center is an available building with at least 500 m² area, and looks accepted by all women, men and students.

250. There is no other constructed building that can be rented for this purpose in Dura town or the surroundings. However if it is decided to build a new building the municipality is ready to contribute by providing the needed land.

251. Annual rent in Dura for a 200-m² space is nearly 1,500-2,000 JD (Jordanian Dinnar: 1US\$~ 0.7 JD), while the building construction costs US\$ 45,000 (Cheaper than the north governorates! And don't know why?) .

252. It is necessary that the MCT to cover the running cost at start then to generate profit after the first year. Establishment of the MCT needs to be covered completely through the World Bank for the first phase (year 1) of the project.

P.5. Salfit (West Bank)

(based on assessed by Taghrid Monljed Lahham)

P.5.1. General information

253. Salfit is a big, active and promising Governorate to work in, especially in the field of the ICT. It has 9 municipalities with total population including the small villages, of nearly 50,000. Most of them are employed in the public sector or in the agriculture. Sixty-five percent of the working population is employed in agriculture, which contributes with 25-30% of the Governorate income. The society is conservative and women need high support, although of the highly active and promising women leadership.

254. In normal conditions, it takes nearly 15-30 minutes travel from the Governorate boarder to the Salfit town center. Usually the transportation is difficult and time consuming, since buses only run every 2 hours. Moreover, in late afternoon, there are only taxis, which is rather expensive.

255. Youth forms nearly 40% of the population. Almost every municipality in the Governorate has a high school. There are two high schools on the level of Salfit town one for girls and one for boys. Each municipality has one Youth (male) Club, and one Women Committee, which sometimes don't have a place to meet in, even on the level of small villages.

256. Salfit has an active municipality and an ambitious mayor (personal observation) and an active Head of Chamber of Commerce, Industry and Agriculture. There are also a good and active Agricultural Marketing Association and a very active young leadership, especially on the level of women, who could be engaged in the Awareness and Marketing of the ICT concept. It has one cultural center and a public library. Salfit also has one branch for Al-quds Open University. This university, for students who need to work and therefore cannot study on full time basis, may be one of the suppliers of distance learning programs in MCTs. Almost 500 students from the Governorate are studying in this university.

257. There are a few local and international NGOs working in the governorate, like PARC (Palestinian Agricultural Relief Committee), Ma'an in collaboration with World Vision in Rural Development Project in this area funded through the USAID.

258. There are some industrial activities, mainly related to stone cutting. Olives and olive oil forms the highest portion of the agricultural products. However, in the current situation it is difficult to bring the produce to the internal, as well as external markets.

259. Irrigated farming is still behind because of the water scarcity. Livestock, and dairy productivity might grow, if farmers were better advised and supported. The Ministry of Agriculture have a department office in Salfit. However, this is not very active according to people interviewed, who prefer to work with the present local NGOs, such as PARC and Ma'an.

260. The medical sector needs support. The Governorate is looking for funds to establish a hospital, which should include a practical nursing institute and a good plastic surgery department to complement other hospitals in the West Bank. The Red Crescent Association could benefit from ICT for networking with other hospitals and NGOs, inside the WBG, and abroad.

261. There is also an active union for the people of disabilities, with a considerable number of members; nearly 320 with different types of disabilities, as well as a high percentage of children who need support in their education and training for future jobs.

262. Also Salfit has a Vocational Training Center/ Ministry of Labor, which is currently inactive because of the very low number of applicants. This could be activated and used for technical training. However, there is a need for awareness building and marketing of the concept, particularly showing the potential benefits for for young women and disabled individuals.

P.5.2. Availability of IT

263. The general theoretical computer knowledge, particularly among men and male youth, is considered good by community leaders,. Women are eager to learn and trying to get support to join the club. The number of the Internet Café's are as follows:

- 1 private (5 PCS connected to the Chamber of Commerce's server)
- 2 café's: one for the Chamber of Commerce (server and 10 PCs) and one for the municipality library (with 5 computers).

- One for the Women Committee (5 PCs)

264. World Vision is assisting the Ministry of Education by providing the schools with computers as well as training for the teachers to use the IT. At least each school has one computer and some will have computer centers.

265. The ministries offices don't have computers, at least not with e-mail connections. They also sometimes lack phones and other efficient convenient communication systems.

266. There is a general lack of communication systems or services, such as photocopying, scanning etc., in spite of the demand for such services, especially for students. There are only 2 or 3 offices, which provide this service, essentially in Salfit town.

P.5.3. Approach

267. The visit was planned, so as to meet with as many representatives as of the ministries and municipalities NGOs, managers of the youth centers and women clubs/committees, and included a special focus group for the youth (school and/or university students). The program included:

- meetings with community leaders
- focus groups
- visit to one or two of the internet café's, with attended by some of the participants in the focus group.

268. Separate meetings were held with:

- The Mayor and municipality people.
- Head of the Chamber of Commerce, Agriculture and Industry.
- World Vision program manager and the staff.

The focus groups:

269. The participants of the focus groups were selected to represent the different social groups and the Governorate as follows:

- Public Sector Focus Group: The group included representatives of the Ministries of Education, Labor, Social Affairs, Agriculture, Culture, and of the Chamber of Commerce, Palestinian TV and Radio in Salfit, farmers and agricultural marketing association, as well as two Internet Café's owners. The total number of participants was 18 persons, including 4 women.
- Youth centers managers and the women committees leaders focus group: 8 persons, including 4 women leaders.
- One focus group with 15 students, 10 students from 6 high-school and 5 university student, including university girl-students.

P.5.4. Needs/ Findings

270. The ministries lack the needed computers and training to use IT facilities, as well as E-mail connections to connect ministries themselves and their information resources.

271. Attendees agreed on the need to develop a web page for Salfit to market the governorate and reach donors.

272. All agreed that Salfit municipality is the right address to update the web page and all associations will be data providers and users.

273. Salfit municipality needs to be assisted in establishing a GIS for their services.

274. Farmers need to find marketing channels for their products, especially the olive oil, which is the most prevailing product in the governorate by networking with other traders through marketing channels internally (West Bank and Gaza) and externally, especially regionally.

275. Some merchants need connections and networking with producers and markets abroad. Currently 2-3% of the Internet use is for trade purposes, such as finding connections and licensing for international trademarks, according to the Chamber of Commerce's sources.

276. Attendees agreed on their high need to establish a local TV.

277. The women sub-group needs counseling, health and legal education and service. They need to contact certain specialists whom can provide advice and consultation, especially in this conservative community.

278. Young women and girls only represent about 10 % of the clients of Internet cafés each 3 days. According to the supervisor of one of these (a disabled woman) women are usually shy, and they need educational and information. They never ask to use the Internet, but come for computer training. The supervisor usually tries to show them how to use the Internet, anyway, to market the Internet use. She stated that the young men's English is better than the women's and any new project should take this into account. She also stated that the number of people women and men who wants to get computer skill and knowledge is growing, however, more so in Salfit town than the neighboring localities.

279. The visits and interviews with the Internet users in the Cafes supervisors indicated that the Internet is used for entertainment for about 75% of the time (mostly chatting), 23% of the time for education purposes and 2% for trade and business.

280. Youth need training to use IT, awareness programs for their families and access to IT facilities. They can use it for networking with other youth around the world.

281. Most of the interviewees support the idea of multi-purpose centers, which can serve more than one sector and target group.

282. English is not easily used, it is good however, and they emphasized the need to

develop the service using Arabic and English, Arabic for local purposes and English to be approachable externally.

283. People with disabilities need to have access to such services, especially because their union is really active. It is important to mention that one of the Internet Café' is already run by a disable young lady, who joined the focus group of the public representatives.

284. There is a need to facilitate and support women's access to such services (mainly the Internet) by providing special (time or rooms for women only) which will encourage the families to allow their daughters to join.

285. Also technicians have to be of both genders to support the women access.

286. All agreed to that the municipality library (320 m2), or the cultural center (365 m2) could host the MCT. However, both need more facilities, including a big screen. They could also be equipped for use as a local TV station

287. Salfit men's club (240 m2) was also proposed as the location for the MCT.

288. Annual rent in Salfit for a 200 m2 space is nearly 2,500 JD (Jordanian Dinnar: 1US\$~ 0.7 JD), while the building costs \$ 250/m2. In case none of the mentioned places is accepted, the municipality is ready to contribute by providing the land.

289. A very often repeated request was to connect other villages or small municipalities, or even the women committee center, with the proposed MCT to facilitate the networking and access to both data providers and users, especially when transportation prohibit their ability to reach the ICT in Salfit town.

290. Currently customers pay 3-5 NIS/hr for the Internet service in Salfit town. However, there is a need for more such services, especially in the surrounding communities.

291. Kefl Haris men's club and Az-zawyeh club are very keen to establish MCT's. However, they need financial support. Kefel Haris with its 300 members already approached PALTEL and managed to obtain about 37% discount on the connection cost, etc., but, nevertheless, still needs support.

292. Az-zawyeh club manger also emphasized their need to establish an MCT that can provide services for its 500 members with age (16-35 years) and can serve some 5000 persons live in the locality, and generate profits. However, they too, lack the required funds.

293. Women community leaders stated that women in the villages may not have accessibility for the following reasons:

- Can't pay the transportation cost or the fees.
- Their husbands won't allow them to visit the ICTs.
- There is no place to leave their kids in, when go to the ICT.

294. Therefore awareness of women's needs must be developed among their husbands and male leaders and women need financial support and a place for their children.

295. All attendees think that this telecenter should also be used for social gathering, English teaching especially by youth during their leisure time where they can communicate and spend time in a watched place to protect them from bad behaviors such as drugs.

296. The management is seen to be through an elected board of trustees who will present most of the localities, and in turn will be responsible to hire the manager and the technicians and other needed staff. The municipality or the cultural center, if selected, needs ICT (the MCT pilot?) to cover the running costs at start then to generate profit after the first year. Establishment of the MCT needs to be covered completely through the World Bank for the first phase (year 1) of the project.

297. The day-to-day management is to be the responsibility of the manager who will report and be monitored by the board of trustees. It is agreed by the attendees that the MCT need to be equipped with 20 computers, in addition to 1 photocopier, 1 scanner, 3 phone lines, 1 fax line, and staffed with 4 technicians, of whom 2 should be women,

P.5.5. Special Observations

298. Women leaders are really active which contradict with the women status in the governorate.

299. Awareness and marketing of the MCT may be done successfully by these women leaders who can talk to both men and women.

300. The ICT can be used for remote teaching and vocational training successfully.

P.6. Tubas (West Bank)

(based on assessed by Taghrid Monljed Lahham)

P.6.1. General information

301. Tubas governorate population is nearly 45,000 persons, distributed on 7 municipalities. Tubas is the biggest and oldest municipality in this governorate, with nearly 12,000 population, followed by Tammoun of nearly 8,000 persons, in addition to other five surrounding municipalities and small communities including al-Fara' Refugee Camp of almost 8,000 persons. Tubas governorate is located in a strategic location in Jordan Valley and of almost equal distance from both Nablus and Jenin.

302. The governorate has the basic infrastructure services that can be used in the information and communication technology, such as electrical and telephone networks in addition to a post office as well as a PALTEL office.

303. It is dependant on agriculture and extension services. Agriculture forms nearly 70%

of the governorate income, and has an extension service unit, which belongs to the Ministry of Agriculture in addition to the Farmers' Union office.

304. Residents of the governorate travel for nearly 45 minutes for the different services, which is distributed on Nablus and Jenin cities. People travel for Jenin for the needed health services, and to Nablus for other governmental services such as the court, social affairs or even to issue a driving license. Application for other governmental service such as the birth certificates or passport issuing is usually done in the Ministry of Interior in Tubas.

305. Tubas governorate has a branch for al-Quds University for evening studies, while the majority of its regular university students study in an-Najah University in Nablus.

306. Tubas has only one bank called al-Quds Bank which is under establishment, and residents travel for other cities for such services.

307. The health sector is a growing sector in this governorate, with many active parties such as the

308. Ministry of Health, the Red Crescent, Union of Palestinian Medical Relief Committee (UPMRC), Health Committees Union and others. Tubas is seeking hard for funds to construct a hospital or at least to develop the existing medical center.

309. Recently, the youth sector is highly activated on the governorate level, and has attracted the attention of many working local and international NGOs, especially the UNDP and Save the Children (SCF). UNDP is supporting a computer center, which belongs to a youth club (Nadi Tubas), which has 11 computers but unable to buy a server due to financial constrains. SCF is working on the development of Salah Khalaf Center (SKC) in al-Fara'. SKC is a central youth center that belongs to Ministry of Youth, and supported by the recently established independent board of trustees to manage the proposed activities. SCF supports SKC to establish an information center, which will be supported with computers, a library, a large screen, lecture room and other services. This also will be supported by children playgrounds, swimming pool and a football yard. This place may become an active multipurpose center and a central ICT if supported.

310. The nearby Fara' camp disabled center has managed to establish an Internet Café with almost 10 computers and managed to get a 37% discount through PALTEL. The management is an ambitious, active and promising leadership.

311. There is no Vocational Training center, which is raised as an urgent need. People thinks that the proposed ICT may be used for IT and Hi-Tech training for youth to develop their knowledge and skills and to generate jobs.

312. All of the communities in Tubas governorate have a women committee or a women club except the ones in the Jordan Valley: Bardala, Kardala and Ein Baida. The women leadership is active and may assist in marketing the ICT concept and its benefits.

P.6.2. Availability of IT

313. There is only one Internet Café in Tubas town, with a very low demand for the service. The rate is 5 NIS/hr. There is no sufficient communication systems or services on the level of governorate such as photocopying, scanning etc., in spite of the demand, especially from students.

P.6.3. Approach

314. The visit was planned to cover as much as possible of the available working ministries and municipalities as for the public sector representatives, available NGOs, managers of the youth centers and women clubs/committees, as well as a special focus group for the youth (school and/or university students).

315. The program included 1) meetings with community leaders 2) focus groups, with the possible attendance of the same interviewee in the focus group.

316. Separate meetings were organized with:

- The Ministry of Local Government (MOLG).
- The Mayor and municipality people.
- SKC manager and a member in SKC board of trustees.
- Al-fara' camp committee of disables head.
- Some of the women committees leaders.

The focus groups:

317. The focus groups were selected to represent the point views of the different social groups and the governorate as follows:

- Public Sector Focus Group: for the different ministries and other public sector representatives: Ministry of Education, Ministry of Labor, MOLG, Ministry of Agriculture, Mayors or other municipal representatives, Agricultural Cooperative, Labor Associations head in Tubas, Women Leaders, youth centers managers, such as Tubas Youth Club and SKC and a representative of its board of trustees. Representatives from the UPMRC, the Red Crescent and the disabled rehabilitation committee in Tubas, in addition to farmers and the Internet Café owner. The total number is 28 persons, including 8 women.
- Youth centers managers and the women committees leaders focus group: 14 persons, including 8 women leaders).
- Students focus groups of 10 students (6 school students, 4 university student) including 3 high school and university girl-students.

P.6.4. Needs/ Findings

318. The ministries lack the needed computers, training to use the IT as well as E-mail connections to connect ministries themselves as well as with information data sources.

319. Attendees agreed on the need to develop a web page for Tubas to market the governorate and reach donors.

320. Farmers need advice and extension service to improve their products and techniques, and usually the Ministry of Agriculture Department does not have the capacity to reach all the needy farmers, so connection of such an ICT with the extension center in the town is highly preferred.

321. Farmers need to find marketing channels for their products and advice to produce high value products.

322. The women focus group insisted on the importance of education and awareness programs especially those directed to women, to improve their quality of life.

323. The representatives of the health working organization focused on the positive role that such an ICT can do, by helping them in reaching more beneficiaries through the web, to introduce counseling, health education and service, because of the existing high needs and their limited human resources. They also proposed to be data and content developers when come to health issues and education.

324. Tubas town is the preferable place to be reached by every locality especially those coming from Jordan Valley.

325. Rare if not exist women or girls presence in the Internet café. However, women started to be involved more in the computer training courses and are eager to learn and gain more computer knowledge. Internet knowledge and training is not the favorite topic for women in Tubas due to social constraints and stereotypes.

326. The youth forms nearly 60% of the population and are the sector, which has the higher interest to have ICT and a good access to information and communication technologies.

327. Entertainment, education, health and agricultural information are the highest priority information needed in this governorate in descending order.

328. Using the ICT for remote teaching is an attractive idea for most of the people consulted. Having access to education, training and scholarships was highly expressed and also needed.

329. Having access to governmental services such as the driving license issuing, statistics and banking services were highly preferred to reach through the Internet which will reduce the traveling time and costs to get the service.

330. Using and having access to E-mail services was also highly needed and expressed by most, for either the personal use or even to contact government and community representatives.

331. Visa cards and E-commerce was not available or a priority.

332. English language level is not considered good and need development. Having access to Arabic sources of information is highly preferred.

333. Youth need training to use the IT, awareness programs for their families and support by providing them with access to IT. They can use it for networking with other youth around the world.

334. In all cases training for users to access ICT services is highly requested, because of the limited skills in this aspect.

335. Most of the interviewees support the idea of multi-purpose centers, which can serve more than one sector and target group.

336. People with disabilities need to have access to such services.

337. It is needed to support the women access to such services (mainly the Internet) by providing special (time or rooms for women only) which will encourage the families to allow their daughters to join.

338. Also technicians have to be of both genders to support the women access.

339. A very repeatable concept was to connect other villages or small municipalities or even the women committee center with the proposed ICT to facilitate the networking and access to both data providers and users, especially when transportation prohibit their ability to reach the ICT in Tubas town.

340. Clear, observed and expressed by the women community leaders, women in the villages may not have accessibility for the following reasons:

- Can't pay the transportation cost or the fees.
- Their husbands won't allow them to visit the ICTs.
- There is no place to leave their kids in, when go to the ICT.

341. It is worth mentioning that there are private Kinder Gardens, but usually only on a monthly basis. There are no baby-sitters available when needed for short periods.

342. All attendees think that this telecenter should also be used for social gathering, and English teaching especially for youth through their leisure time.

343. The management is seen to be through an elected board of trustees who will present most of the localities, and in turn will be responsible to hire the manager and the technicians and other needed staff.

344. The day-to-day management is to be the responsibility of the manager who will report and be monitored by the board of trustees. It is agreed by the attendees that this ICT need to be equipped by 15 computers and 2-4 technicians of whom 50% should be women, in addition to 1 scanner, 3 phone lines, 1 fax line in addition to photocopier, etc.

P.6.5. Special Observations

345. Women leaders are really active which contradict with the women status in the governorate.

346. Awareness and marketing of the ICT may be done successfully by women leaders who can talk to both men and women.

347. The ICT can be used for remote teaching and vocational training successfully and also in the agricultural extension service.

P.6.6. Location

348. Tubas youth club is an available building with 340 m² area, although the men insisted that ladies have a free access to this place talking with young women student, shows that they are shy and may not be able to go there to benefit from the services, due to some social and cultural constraints, despite the ability of women leaders to go there without any problem. So if we are going to attract young ladies to go we need to get the assistance of the women leaders to change the prevailing attitudes through awareness programs. This problem is getting worse when come to the surrounding village ladies who should benefit from the services but have to come from remote villages from the Jordan Valley. These are usually more conservative and shy and need great efforts to be attracted.

349. The second available place may be SKC which is usually opened for both women and men and it seems the sensitivity is less when to come to women presence here. Tubas youth club has the Arabic name that give the specialty for male-youth, however, SKC is more opened for both genders. But the use of space in SKC has to be decided by both the Ministry of Youth as well as SKC new board of trustees. This place also has other attractive facilities such as an open green area, information center, possible kids playground where mothers can leave children to play etc. It is a multi-purpose community center that may be useful if selected.

350. There is no other constructed building that can be rented for this purpose in Tubas town or the surroundings. However if it is decided to build a new building the municipality is ready to contribute by providing the needed land.

351. Annual rent in Tubas for a 200-m² space is nearly 3,500 JD (Jordanian Dinnar: 1US\$~ 0.7 JD), while the building construction costs 45,000 JD.

352. If either of the two first options is selected, it is necessary that the MCT pilot cover the running cost at the start. Establishment of the MCT needs to be covered completely through the World Bank for the first phase (year 1) of the project.

Appendix 4

Institutional Assessment of a sample of 10 Communities in the

West Bank and Gaza

Not included

Appendix 5 – ICT environment in the WBG⁴**Table of contents**

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Q. Political and socio-economic environment in the West Bank and Gaza

353. Despite some temporary progress in the peace process between Palestinians and Israelis between 1993 and 2000, the economic situation of West Bank and Gaza has deteriorated. Unemployment is persistent and has even increased since the second Intifada started in September 2000. Physical and social service infrastructure has been neglected or actively destroyed and thus deteriorated, while continued political uncertainty has further discouraged investments. Goods and services, including food, have great difficulties to reach their markets due to the extremely restricted mobility of people and goods.

354. Social and economic development in West Bank and Gaza is particularly constrained by:

⁴ This Appendix draws heavily on Grueninger, M., 2001. West Bank and Gaza - Integrated Community Development Project, Component: Community Information and Communication Centers- A discussion and resource paper to facilitate component preparation. The World Bank, Washington.

- Lack of contiguity: West Bank and Gaza are two separated territories.
- Frequent Israeli closures of roads and areas hamper economic activities and personal communication and movements.
- Geographical dispersion: only 20% of the population live in the largest cities, while the remaining 80% are scattered across villages and small municipalities.
- A significant proportion of Palestinians lives abroad, and contact with relatives and business partners at home is difficult.
- Lack of natural resources
- High level of unemployment

355. In a lower middle-income country like West Bank and Gaza with significant spatial constraints, an information-technology-based economy would have a particularly high potential to stimulate growth and reduce poverty. In addition, with its neighboring countries investing heavily in this sector, West Bank and Gaza runs the particular risk that the gap between them and the neighbors widens even further and puts the Territories at a considerable economic disadvantage. It thus faces an enormous challenge in developing its information and communication technology sector.

Q.1. Population and human development in WBG

356. According to the Population, Housing and Establishment Census, the population of the West Bank and Gaza (WBG) totaled 2,895,683 in 1997 (PCBS, 2000). An average of 6.4 persons live in each household. Table 1 shows the population by governorate.

Table 1: Population in Governorates of the Palestinian Territories

	<i>Population</i>	<i>Proportion (%) of total</i>		<i>Population</i>	<i>Proportion (%) of total</i>
Jenin	203026	7.0	North Gaza	183373	6.3
Tubas	36609	1.3	Gaza	367388	12.7
Tulkarm	134110	4.6	Deir Al - Balah	147877	5.1
Qalqilya	72007	2.5	Khanyunis	200704	6.9
Salfit	48538	1.7	Rafah	122865	4.2
Nablus	261340	9.0	Gaza Strip	1022207	35.3
Ramallah & Al-Bireh	213582	7.4			
Jerusalem	328601	11.3	Palestinian Territories	2895683	100.0
Jericho	32713	1.1			
Bethlehem	137286	4.7			
Hebron	405664	14.0			
West Bank	1873476	64.7			

(PCBS, 2000. Population, Housing, and Establishment Census 1997. Palestinian Central Bureau of Statistics. http://www.pcbs.org/english/phc_97/populat.htm)

357. The general literacy and educational level in West Bank and Gaza is generally good and above regional averages. In the year 1997 adult literacy was 86% (93.3% for males, 83.3% for females 10 years and above – see Table 2 and 3). The difference between men and women has decreased significantly since then.

Table 2: Educational level of the population (10 years and above) in the Palestinian Territories

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Illiterate	6.7	16.7	11.6
Can Read and Write	17.6	16.3	16.9
Elementary	26.8	25.4	26.1
Preparatory	23.4	22.2	22.8
Secondary	14.4	12.2	13.3
Associate Diploma	4.5	4.0	4.3
Bachelor	5.4	2.4	3.9
Higher Diploma	0.1	0.0	0.1
Master	0.6	0.1	0.3
Ph.D	0.2	0.0	0.1
Not Stated	0.3	0.7	0.5
Total	100.0	100.0	100.0

(PCBS, 2000. Population, Housing, and Establishment Census 1997. Palestinian Central Bureau of Statistics. http://www.pcbs.org/english/phc_97/populat.htm)

Table 3: Selected human development indicators for WBG in comparison to all countries in the Middle East & North Africa and lower middle-income countries

	<i>West Bank & Gaza</i>	<i>MENA</i>	<i>Lower middle- income</i>
<i>1999</i>			
Population, mid-year (millions) /a	2.841	291	2094
GNP per capita (Atlas method, US\$) /a	1800	2060	1200
GNP (Atlas method, US\$ billions) /a	5.120	599	2513
Average annual growth, 1993-99			
- Population (%)	3.9	2.1	1.1
- Labor force (%)	5.0	3.0	1.2
<i>Most recent estimate (latest year available, 1993-99)</i>			
Urban population (% of total population)	70	58	43
Life expectancy at birth (years)	71	68	69
Infant mortality (per 1,000 live births)	25	45	33
Access to improved water source (% of pop.)	90	71	86
Illiteracy (% of population age 15+)	16	36	16
Gross primary enrollment (% of school-age pop.)	91	95	114
Male	91	102	114
Female	92	88	116

Source: World Bank, 2000.

R. Information and communication technology (ICT) in West Bank and Gaza

R.1. Electricity

358. The main power supplier is the Israel Electric Corporation (IEC). The distribution system is operated by the municipalities, except for those supplying Jewish settlements. East Jerusalem is supplied by the Jerusalem Electricity Company, a private Palestinian company. This situation of net imports is expected to persist for some time as local electricity production is low: 680 kWh per head in 1992, compared to 1054 kWh in Jordan. The distribution system is run-down and overloaded and suffers from frequent supply interruptions (EIU, 2000).

359. The World Bank is supporting an Electrical Sector Investment And Management Project (<http://mna2.worldbank.org/mnabkup/Docs/Gaza/Project/ELECTRI.DOC>) and the European Investment Bank (<http://www.eib.org/>) is financing the rehabilitation and extension of power distribution networks in central and southern areas of the West Bank. The Gaza Power Plant under construction will be able to supply at least 120 MW in the early phase. The Gaza Strip is fully connected to the local power grid But solar power might be an option for remote areas of the West Bank.

360. In other areas in the world where public power supply is unavailable or not sufficiently reliable, telecenters have already been successfully established with solar power. In 1998 a solar-powered community center has also been established in Al-Kaabneh, a Bedouin village South of Hebron in the West Bank (see www.greenstar.org).

R.2. Telecommunication

361. In 1995 the Palestinian Telecommunications Company - PalTel (<http://www.paltel.net/>) - was awarded a 10-year license to operate fixed-line telephone services and a 20-year contract to operate mobile telephone services in the West Bank and Gaza Strip. It operates in direct competition with Israel's government-owned Bezeq⁵.

362. In January 1997, when PalTel took over the task to supply West Bank and Gaza with telecommunication services, it counted a total number of working lines of 83,621. By the end of 1997 PALTEL maintained already 112,497 lines, thereof 78,144 in the West Bank and 34,353 in the Gaza Strip. Since then, this number continuously increased to a total of 167,271 lines, thereof 114,419 in the West Bank and 52,852 in the Gaza Strip, by the end of July 2000⁶, resulting in a ratio of 36 fixed lines per 100 households, based on the 1997 population census and an average household size of 6.3 persons. According to PCBS' mass media survey in the year 2000, this ratio had then reached 42.1, with significant differences between West Bank (45) and Gaza (36.5) (Global Gateway, 2000).

363. PalTel's efforts to expand the coverage of their telecommunication services is encouraging. In addition to the number of lines provided, the number of people on waiting lists has declined from 182,866 in 1997 to 23,332 at the end of July 2000.⁷

364. Service quality also seems to have improved substantially. While PalTel received 180 complaints per 10,000 customers in 1997, this number declined to 64 by the end of July 2000. The proportion of resolved complaints within 24 hours increased from 72.6% in 1997 to 84.8% in 2000 (January to July). PalTel further improved the quality of their services by reducing installation and repair times, and provisioning of public payphones.⁸

365. However, the positive development of the waiting list might be somewhat distorted by the fact that many Palestinians have chosen mobile telecommunication instead of waiting for a fixed line⁹. In 1998, the Swedish telecommunications supplier Ericsson has signed a contract with PalTel for a GSM 900 system which shall cover most of the West Bank and Gaza Strip. There are currently two Israeli mobile phone operators in West Bank and Gaza (Cellcom with a digital AMPS system and Pelephone with an N-Amps network), which had a total of 70,000 subscribers in 1999, representing 25% of the

⁵ <http://www.bezeq.co.il/eng/index.html>

⁶ <http://www.paltel.net/customer/develop1.htm>

⁷ <http://www.paltel.net/customer/develop2.htm>

⁸ <http://www.paltel.net/customer/satisfy2.htm>

⁹ In 2000, the average waiting time for a telephone mainline was still 7.7 years in West Bank and Gaza, compared to 3.4 years on average in the countries of the Middle East & North Africa region, and zero in Germany, for example. (World Bank, 2000c. World Development Indicators.)

mobile market, the remaining users were subscribed to Israeli networks. Ericsson/PalTel expect to see many users switch to the Palestinian operator Jawwal, owned by PalTel, when they subscribe to GSM.¹⁰

366. Commercial service of the GSM mobile system started in Gaza in August 1999 and in the West Bank in October 1999 with two mobile switching centers (SMC's) becoming operational in June 1999, one in Ramallah City and the second in Gaza City. PalTel envisages a final total capacity of 120,000 mobile lines, with 90% indoor and 95% outdoor network coverage (<http://www.paltel.net/gsm/index.html>).¹¹

R.3. Regulatory framework and national ICT strategy in the WBG

367. In the past, ICT services in West Bank and Gaza were entirely provided by Israeli companies. But during the past few years, achieving independence in the ICT sector has become one of the top priorities. Since the signing of the Oslo I agreement between the PLO and Israel, numerous parties and institutions have influenced the ICT sector in West Bank and Gaza. Under the Oslo II accord, the PNA became legally permitted to "build and operate separate and independent communications systems and infrastructures including telecommunication networks". The Palestinians further have "the right to establish appropriate policies and regulatory frameworks and the right to make their network independent from the Israeli networks. The PNA is the only party responsible for granting licenses for operating telecommunication services in West Bank and Gaza. The Palestinians have the right to levy royalties for all calls originating or terminating in all Palestinian territories regardless of the security control zoning. The Palestinians are allocated frequency ranges for their use while the overall frequency management is retained by Israel. Some frequencies used by private and official Palestinians since 2001 are considered illegal by Israel. International and regional connectivity shall be inter-mediated by duly licensed Israeli operators." (EU-ESIS, 2001).

368. The overall policy of the PNA is to engage the private sector in all operational aspects of ICT while maintaining the role of policy making and regulatory monitoring within the Ministry of Post and Telecommunication. Although the MoPT intends to establish a regulatory framework adequate for a liberalized market, the only sizable regulatory activity was issuing the license agreement of the Palestine Telecommunication Company, PalTel, as the only provider of fixed-line and mobile telecommunication services in West Bank and Gaza. As the details of this license have never been published and the conduct of other regulatory duties appears somewhat selective, the necessary transparency - which would be required for a larger involvement of the private sector - is still lacking.

369. The ICT equipment market lacks any regulatory standardization. Most such

¹⁰ http://www.ericsson.com/SE/kon_con/contact/cont10_99/c10_08.html

¹¹ For telecommunication tariffs and price information in the West Bank and Gaza, see: <http://www.paltel.net/customer/charges.htm>.

equipment is imported through Israel, required to comply with Israeli standards, and resulting in a large dominance of US products and services. Direct imports from the European Union are not permitted. The MoPT has imposed licensing procedures characterized by excessive fees for local radio stations and trading with telecommunication equipment, and even intends to expand this practice to the data communication market. The Telecommunications Minister has issued a decree by which access to the Internet shall be charged by a fixed flat rate of US\$ 20 per month. Spectrum management is limited to rationing the frequencies allocated by Israel to be used by the PNA. Intellectual property rights are being examined for their compliance with WTO requirements. Adequate protection of privacy is still lacking in West Bank and Gaza.

370. With respect to competition in the ICT sector, EU-ESIS states: "Apart from the licensing agreement of PALTEL, the licensing procedures in West Bank and Gaza thus far may be characterized as 'Class Licensing' type. The Ministry of Post and Telecommunication has setup a regime of licensing for almost every aspect of the telecommunication sector. The regime includes both consumers as well as providers of services. The following is a sample list:

- Class License for Internet service providers: A rigorous process for applications including clearances from the tax authorities and local government with an annual licensing fee of US \$ 1400.
- Class License for users of leased lines: A rigorous process for applications including clearances from the tax authorities and local government with an annual licensing fee of US \$ 570.
- Class License for trade in wire-line and *wire-less equipment* (including telephone sets, PBX's, cellular terminals, fax machines, etc): A rigorous process for applications including clearances from the tax authorities and local government with an annual licensing fee of US \$ 1400. Private and NGO parties continue to be banned from using wireless equipment. The permission of use is said to be restricted to educational institutes. However, there exists no clear rules to govern this or clarify who is permitted and who is not permitted to use such equipment. Some private, international and NGOs continue to 'illegally' benefit from such facility. The PNA fears that such use will affect the monopoly PalTel has on the local market).
- *Class License for FM radio stations*: A rigorous process for applications including clearances from the tax authorities and local government. An annual licensing fee of US \$ 1400 (This does not include Gaza in which no private radio stations are allowed to operate. Officials deny this and continue to claim that no private party has produced a 'valid' application yet').

371. As the license of PALTEL has not been made public, only observations about Universal Service, Tariffs and QoS can be made."

372. Recent attempts by the MoPT to eliminate the Israeli restrictions on international connectivity have been successful. The Ministry managed to secure a successful vote among the members of the ITU to grant West Bank and Gaza the international country code 970. Further, West Bank and Gaza was recently awarded its top-level domain ".ps".

373. An overall ICT strategy is still lacking in the country. First efforts to define such a strategy and identify reform issues were undertaken by PECDAR which contracted

KPMG to conduct a "study for the restructuring of the telecommunication sector in Palestine". Further, the Palestinian Information Technology Association (PITA) - which understands itself as the voice of the information technology industry among IT suppliers, with a vision to provide industry leadership and opportunities for the domestic IT market - tries to push the MoPT to reduce the licensing fees for importation and sales of telecommunication equipment and to remove end-user licensing fees for leased line circuits. The Palestinian Government has started an initiative to define an IT strategy, which is aimed to enable the development of an export-oriented IT industry and enhance the use of IT in the Palestinian public and private sectors as well as the Palestinian society at large. This project is managed by a Steering Committee composed of members drawn from the PNA, academia, the private sector, the EC and the World Bank and is chaired by the Governmental Computer Center (GCC, (<http://www.gcc.gov.ps/projects.htm>)). However, the strategy proposed in 2000 and was deemed unacceptable by the GCC.

374. In May 1999, PECDAR has formed the "Information and Communication Technologies Advisory Board (ICTAB)" to review legislation and regulatory issues in the ICT sector. Although its exact role is yet to be defined, it is expected that the Board will assume the role of an independent regulator. A Governmental IT committee was also established in 2001 headed by the Ministry of Industry. The committee, although it claimed to be committed to advancing IT in West Bank and Gaza, has not made any headway so far.

(Sources:

Master report on the regulatory framework: <http://www.eu-esis.org/esis2reg/PAreg7.htm>

Basic facts and indicators: <http://www.eu-esis.org/esis2basic/PAbasic7.htm>

WWW indicators: <http://www.eu-esis.org/esis2www/PAwww7.htm>).

R.4. Information Technology

375. The ICT industry in WBG is worth an estimated \$60-70 million annually and is expected to grow to \$300 million by 2005. The IT sector in West Bank and Gaza employs approximately 1,800 people in 215 enterprises, according to an industry needs assessment performed by CPED (CPED, 1997). IT expertise enjoys high reputation, but the local market is limited and business structures are lacking, according to the same source. While the telecommunication situation improves quickly, PC penetration in Palestinian households is still very low. Computer availability in households ranges from 36.3% in central West Bank to only 14.2% in the Gaza strip. Differences between urban (75.7%) and rural 17.8%) (and 6.5% in refugee camps) are even more pronounced. The combined effect of the telecommunication and IT situation in WBG results in a low 2% of Palestinian households with Internet access.

R.4.1. Current Internet usage pattern

376. A mass media survey conducted by PCBS indicated that 5.4% of the people aged 18 years and above have access to the Internet, with large difference between men (7.9%) and women (2.8%). Most Internet users access the web from their place of work or study.

The number of subscribers to an Internet service provider is constantly and quickly increasing in WBG. Palnet, the WBG's largest ISP, reports a growth of 210-250 new¹² per month (Global Gateway, 2000, and CPED, 1997).¹³

377. The major part of the Palestinian Internet traffic is destined to access information outside West Bank and Gaza. Local traffic is negligibly small. However, electronic mail is one of the most important Internet services, and traffic intensive entertainment downloads, such as images, videos and file transfers make up a significant proportion of Internet access activities.

378. Most West Bank and Gaza Internet users access the web through dial-up connections. A general shortage and poor quality of a significant number of those telephone lines, and costly long-distance calls to ISP locations (served by the Israeli Telecommunications Networks) pose major constraints to Internet access. Internet access through mobile phone systems is playing an increasingly important role in West Bank and Gaza. Digital leased lines are now available between almost all areas in West Bank and Gaza, yet they are still faced with the problem of very high cost. (See: <http://www.paltel.net/services/page4.htm> for DLL network and tariff structure in West Bank and Gaza.)

R.4.2. Internet Service Providers

379. PalTel has been advised against and refrained from the idea of providing end-user Internet access. It is thus not acting as a competitor on the ISP market but focuses on providing Internet access to ISPs and large customers (Tarazi, 2000). At present, all Palestinian ISPs obtain their services from Israeli service providers. There are at least 10 ISPs¹⁴ in WBG. There are now more than 100 Internet cafés, in all Palestinian areas inclusive of villages and refugee camps¹⁵.

R.4.3. Palestinian websites and local contents development

380. A "complete guide to West Bank and Gaza's websites" can be found on a website by the Birzeit University: www.birzeit.edu/links/glance.html. This link also lists several websites of municipalities. A good compilation of Palestinian online information can be found on web portals, such as www.Maktoob.com and www.albawaba.com. Some other portals of interest in this context are listed and assessed in the Palestinian Development Gateway's business plan.

¹² Global Gateway, 2000. Palestinian Development Gateway (PDG). Business Plan. Draft, December 2000.

¹³ Further online resources are found, for example, under:

<http://www.palesta.net/active.asp?title=4&refer=all>.

¹⁴ Alami, Bailasan: <http://www.bailasan.com/>; Baraka: <http://www.baraka.com/content-index.htm>; Halley; Hebron Net; Jerusalem Online: <http://www.jrol.com/>; Palestine Online: <http://www.p-ol.com/>; Palestinian Academic Network - PLANET: <http://www.planet.edu/>; PalNet Communications: <http://www.palnet.com/>; Shabaka; Zaytona

¹⁵ source: <http://www.netcafeguide.com/palestine.html> and Mr. Sabri Saidam, Palestinian Welfare Association

R.4.4. Selected ICT development activities in West Bank and Gaza

381. "The Palestinian Scientists and Technologists Abroad (PALESTA, <http://www.palesta.net/>) is a project which is launched in the mid 1997's by Science and Technology Planning Unit (part of the Ministry of Planning and International Cooperation) with support from the [United Nations Development Program \(UNDP\)](#) and the cooperation with the [Ministry of Higher Education](#), Palestine Academy for Science & Technology, [MIFTAH](#): The Palestinian Initiative for the Promotion of Global Dialogue & Democracy, and [Shaml](#): The Palestinian Diaspora & Refugee Center. PALESTA is an Internet-based platform of Palestinian scientists and technologists that will harness the scientific and technological knowledge of expatriate professionals for the benefit of socio-economic development efforts in West Bank and Gaza."

382. PALESTA's website (<http://www.palesta.net/active.asp?title=4&refer=all>) lists a number of national ICT topics and initiatives, such as: National Institute for Information Technology, Palestinian institutions arising from the Web, Society (EUMEDIS) Program (<http://www.eumedis.gov.ps/default.htm>), IT workshop at Polytechnic University, the Government Computer Center, Hi-Tech Industrial Zone in Khadoury, Palestine Information Technology Special Interest Group (ITSIG), CISCO Regional Network Training Academy, and the Palestinian Information Technology Association (PITA, <http://www.pita-palestine.org/>).

383. Further, the "Across Borders Project" (<http://www.acrossborders.org/>), initiated in January 1999 by the Birzeit University, aims to bring Internet technology into Palestinian refugee camps across the Middle East.

The Baltimore-based International Youth Foundation, in conjunction with the Palestinian Welfare Association, currently plan to implement a project on "Information technology for Youth in Rural Communities in the West Bank", with requested financing from USAID¹⁶. It plans to establish a regional IT center in Silet Al-Dhahr and mobile units serving Nablus: Sebastya, Beit Imrin, Burqa villages, and hamlets of Ijnisinya and Nisf Jubeil, Jenin: Sileh Ad-Dhahr, Jaba', Al-'Attara, Bizzariya, Fandaquimiya villages, with a total population of about 30,000.

¹⁶ USAID: Developing the Internet in Asia: <http://www.usaid.gov/regions/ane/ict/Internet.htm>, US assistance to the West Bank and Gaza: http://www.usaid.gov/regions/ane/newpages/one_pagers/wbg.htm.)

Appendix 6 – Some potential benefits of ICT

1. In the concerned communities farmers, small entrepreneurs and traders can by means of ICT learn about new methods and technologies to improve their productivity as well as about markets, business management and marketing their products and services. ICT will also enable them to contact suppliers and clients, find out about prices in different markets, settle deals, etc. without undertaking time consuming, costly and, today, very difficult journeys. They can also market their products through the Internet and, at a later stage, use the Internet for commercial transactions (e-commerce).
2. Access to information about financial markets and possibilities to obtain start-up loans for small business may generate more business and jobs. Tele-working also becomes a possibility to generate additional job opportunities in the community.
3. Provision of computer-mediated (CD-ROM- or Internet-based) courses and counseling in areas such as basic hygiene, health, environment, and water management could contribute to improving the living conditions of the population.
4. ICT would help reduce teachers' and health workers' isolation and enable them to keep abreast with development in their fields. They could access, through the Internet, training material and research of relevance to their work, and receive counseling from colleagues when needed.
5. Provided that Government-on-line becomes a reality, people will be able to carry out a number of tasks in the Community Telecenter, which currently require traveling to urban centers, such as registration of birth, houses and properties, cars, or to get drivers license and other licenses issued by the government. Also people would be better informed about welfare programs and ICT would facilitate the application for benefits and the administration of this.
6. ICT would also enable the government and the community to involve the citizens in decision-making processes, for example by communicating development plans and ask for people's feedback. This will make the government and community authorities more accountable and improve democratic processes.
7. Some more specific expected benefits for the youth and women (which should be especially targeted in the project) are indicated below,
8. *Youth* would, for example:
 - learn IT skills which will be needed in many jobs in Palestine (considering that information services is likely to be a major occupational sector in the absence of natural resources);
 - find out about educational opportunities and scholarships (and apply for these) without traveling to Universities or other training institutions;
 - be able to get education and learn market oriented skills without necessarily going to a high school or university or vocational training institutes (using web-based multimedia material or true distance learning if and when this is offered);

- Access research papers and other knowledge resources through the Internet and thus carry out a large part of their university studies without traveling.
- have a place where they can spend their leisure time (most of their time in many cases) playing computer games, watching videos (which could be both educational and for entertainment only), and chatting with students and friends all over the world.

9. This would save youth's (and their parents') time and money for travel and would help keeping youngsters away from the crime, drugs and other hazards of the streets..

10. *Women* would, for example:

- get more equal opportunities to learn IT and other marketable skills, including business planning, management and administration, secretarial and administrative skills;
- be able to market handicraft and other products and services they produce
- get professional advise on how to improve their social life, health and economy (counseling on marriage problems, child raising, health and environmental issues);
- be able to chat with friends and relatives living abroad or at a distance and network with support groups in Palestine and other parts of the world;

11. The benefit for the **Government** is threefold. It will be able to:

- provide public services, such as education and health, more cost-efficiently and at higher quality; using ICT,
- collect information and essential statistics at less cost and effort;
- involve more citizens in the democratic process.

12. **Suppliers of goods and services**, including information services, will benefit, as they will be able to reach new markets with their products and services.

Appendix 7 – Telecenter models, services and facilities

A. Definitions

1. Telecenter models may be differentiated by the services they offer, as well as by ownership, and management structure and by location (libraries, schools, extension centers, mobile units, etc.).
2. The word “telecentres” is used for many different types of facilities. It is therefore important to clarify what we mean by telecentres. While all “telecentres” are shared facilities, which make the cost per user significantly lower than individual subscriptions to telecom and Internet services, one may distinguish between three major types of “telecentres”.

Type 1: commercial telecommunication centers

3. “Type 1 Telecentres” include public phones and other shared telecommunication and Internet access points, called, for example, Public Call Offices (PCOs), telekiosks, phone shops and “Internet cafés”. These are “telecentres”, which may offer any, or a combination of, the following services: basic telecom services (phone and fax), photocopying, email and Internet access. These services are offered on a commercial basis (even though the telecommunication tariffs may be subsidized by the telecom operator).
4. Such “telecentres” (except public phones) are usually run by private entrepreneurs (often shopkeepers, franchised by the telecom operator). PCOs, phone shops and not least “Internet cafés” are rapidly spreading in many developing countries because they offer attractive business prospects in many locations. However, their presence is usually limited to densely populated areas, where there is an existing telecommunication infrastructure (which could be based on cellular technology, as in the case of the Village Phone in Bangladesh), and a sufficiently large customer base, aware of the benefits of ICT and able to use the facilities.
5. It should be noted that already access to plain old telephones (POTs) has proven to stimulate economic activities and to improve people's living conditions. Access to the Internet provides those who can afford it with much more powerful tools to find information they need, communicate with experts, friends and relatives at less cost. Today, the Internet also provides means to develop their skills and knowledge, using the ever-increasing wealth of information and knowledge available on the web. Thus, type 1 telecentres contribute significantly to economic, social and cultural development of a country and to bridge the “digital divide” between countries. The problem is that it also contributes to enlarge the “digital divide” between the haves and the have-nots within the country.
6. In the West Bank and Gaza, only some 42% of the households are connected to the fixed telephone network but cellular, mobile telephone systems are spreading rapidly. The less wealthy may not be able to afford a mobile phone but public phones are usually available. Internet cafés are becoming common in the larger cities and towns and will increase in numbers. Type 1 telecentres will be established by the private sector wherever there is a mature market. Therefore, government support for establishment of such telecentres is not really justified. However, a large portion of the population are unaware of the potential benefits of access to ICT, cannot afford access to Internet or do not have the skills required to use the Internet.

Type 2: Multi-purpose community telecentres

7. Telecentres of Type 2 are often called Multipurpose Community Telecentres, Community Information Centers or Community Access Centers. Such “telecentres” have a mission to support community development by provision of access to ICT and to develop the inhabitants' capacity to use these. Another characteristic is that they endeavor to deliver a maximum range of public as well as private services in order to share the cost of the infrastructure as widely as possible and, hence, improve economic and financial sustainability.

8. Type 2 Telecentres will be called Multipurpose Community Telecentres (MCT) in this paper, as these three words describe well the characteristics of the facility. To qualify as a MCT, telecentres should meet all the following criteria; they should be:

- i. Multipurpose, i.e. offer both public and private services and not only communication services, in particular information services and user training and support;
- ii. Community-based, i.e. community authorities, local co-operatives or associations should have a stake in the MCT, even if it may be operated by a private entrepreneur;
- iii. a *Tele-center*, i.e. offer telecommunication services, including Internet.

9. The borderline between type 1 and type 2 telecentres is becoming somewhat muddled and PCOs, phone shops and Internet cafés could very well evolve to become MCTs by also offering a range of private and public services.

Type 3: Other Community (Tele-)centers

10. Type 3 includes various “single-purpose” community centers, which are primarily established to deliver public services, including education and training, as well as community centers established to support community development in general. Examples of Type 3 (Tele-) community centers are: libraries (with, or without access to the Internet) and distance learning centers, located in schools or elsewhere. Type 3 also includes computer centers, with or without Internet access, established primarily for capacity building among members of specific target groups, such as women and youth. Insofar as such centers deliver public services only and, hence, are funded exclusively from public sources, they do not meet the criterion i for MCTs. If they do not offer telecommunication and Internet they do not meet criterion iii.

B. MCT Services

11. One significant difference between an MCT and other types of (Tele-)centres is the “Multipurpose” aspect. Thus, MCTs should, by definition, offer more than just basic communication services, and, in particular, public services, e.g. library, and general information services and, in a longer perspective, tele-education, tele-healthcare, “government-, and community-on-line”, depending on needs and availability of “content”. The services to be offered will vary according to the local needs and will not necessarily be the same in a community dominated by agricultural activities as one where most of the population is employed in trading or public services, for example. One can therefore imagine several different variations of the basic MCT model, e.g. models for:

- telecenters in agriculture-oriented communities
- telecenters in refugee camps
- telecenters in urban municipalities
- telecenters linked to educational facilities
- mobile telecenters)

12. MCTs aim at developing poor and disadvantaged people’s capacity, and provide the means for them to participate in democratic processes and to produce information and knowledge, which is relevant to their needs (or needed by the government or elsewhere).

13. Therefore, provision of the all important user support and training is another feature that distinguish MCTs from PCOs and Internet cafés. Information and training could be delivered on printed material as well as electronically (CD-ROMs, databases, Internet) and information officers could help those who are not yet ready to use ICT to find the information they need or to contact the people they need to reach by email. They could also assist in entering information and to create IT-based content produced by the local population, until the required capabilities have been developed.

14. Storing information in electronic form does not necessarily mean that each individual end-user would have to access, retrieve and interpret this information from electronic devices. Personnel at the ICT center could take over this function and offer personal services to individual end-users.

15. Access via intermediaries would be based on personal contact between the end-user and telecenter employees and function through specific requests communicated to the telecenter staff, either through walk-in services, or requests by phone or fax etc. This access mode is particularly interesting in communities where literacy levels or technical skills would otherwise constrain the full use and benefits from ICT.

16. The MCT could also include a community radio transmitter which would reach the surrounding population (including illiterates) with local news and relevant information picked up from other information sources, including the Internet, e.g. health related information and information about new agricultural production technologies, crops, fertilizers, the weather, etc.

17. A maximum offer of “private” information and communication services, such as telephony and fax services, voicemail, tele-trading, rental of virtual offices, vocational training courses and support to SMEs, email and Internet access and video viewing will improve the sustainability and increase the impact of the MCT on economic development. The needs survey revealed that IT, and other vocational training is a high priority, whereas, for example, e-commerce is not likely to be an early application, as credit cards are very uncommon in the concerned areas.

18. Depending on the needs, MCTs could also provide postal and banking services and function as an outlet for other communal services such as water and electricity. MCTs may also function as centers for community activities and provide opportunities for entertainment (video, cultural and other events). This would help to attract the local population, particular young people, who, possibly, constitute the most important target group. It could also make money by selling or renting out stationary or computer hardware, TVs, radios, cell phones, etc, as a side activity.

19. The provision of services could be prioritized and scheduled so that the centers will expand gradually, as they build their own capacity and get confidence, for example as suggested below.

1. Internet access, accompanied with training on its usage and searching techniques for the sources of information on the internet;
2. Fax, telephone, photocopying, desktop publishing;
3. Serve as an orientation and information clearing house for available local/international web sites that have information, relevant to the needs (health, university info. municipal services, banks, government), so that citizens start using available information and knowledge resources. This, in turn, will push service providers and government to provide more information demanded by the communities;
4. Computer training on various IT and information-related subjects that could build the capacity and fit the community needs;
5. Existing vocational training courses (web-based and on CD-ROMs) responding to the needs of the community;
6. Business support center
7. Videoconferencing and/or distance learning facility

C. MCT building and facilities

20. The size of the building and facilities will vary, depending on the services provided. As a rule of thumb, ome 200 sqm floor space will be a minimum for a fully-fledged MCT. This floor space could accommodate a training room, office for the manager, a “virtual” office for local businessmen and a public access area, as well as WCs and a Kitchenette. A children’s playground (minimum land required: 100 sqm), close to the MCT, or inside the building would make it easier for child-raising women to come to make use of the facilities.

21. Some 10-20 multimedia stations (high-end PCs), connected to a LAN server, may be required in the training room and 5-10 PCs for Internet access in the public access area (those in the

training room could also by the public be used when courses are not conducted). Additionally, 2-4 PCs may be required for administration and for the virtual office, and, possibly, for telemedicine applications. Three or four printers, 2 scanners, some 5 telephones, one or two fax machines and at least one photocopying machine will also be required. To this must be added servers and software, including firewall.

22. Depending on service requirements and level of ambition, the MCT may also be equipped with a digital still camera, VTR and large screen for viewing entertainment and training videos, and video production equipment (small digital video camera and computer software for editing films, for example). The total cost of hardware and software may range from US\$ 40,000 to US\$ 150,000, depending on the set-up. This assumes that there is connectivity with adequate bandwidth (at least 64 kbps but more likely 128, or higher, will be required).

23. The cost of providing that connectivity will vary very much, depending on existing telecom networks, geographical location and bandwidth requirements. Digital Leased Lines (DLL) are at present very expensive in the West Bank and Gaza. As an example, the monthly fee for a 128 kbps DLL is currently more than US\$ 500 between major nodes. Lower prices for DLL should be negotiated with PALTEL, as MCTs will contribute to the development of markets for the TELCOs.

Appendix 8 – Proposed MCT pilot locations

Not included

Appendix 9 – Monitoring and Evaluation of the MCT pilot

384. It is recommended that the MCT pilot focus on the following broad research questions.

- Does access to ICTs in rural areas contribute to social, economic and cultural development and, if so, how and what are the benefits?
- Are there any adverse effects and, if so, which?
- Do MCTs provide a sustainable way of providing universal access to ICTs and what are the conditions, which must be met to make them economically viable and replicable? If not will they ever be and under which conditions? Are there other better ways?
- What are the best practices models for the set up, organization, management and operation of MCTs, under different conditions?
- What policies and regulations are required to promote the replication of such centres at the national scale, based on private sector investment?
- To what extent did the proposed national forum for collaboration achieve its objectives and how did it contribute to sharing of resources and to the development of a national ICT strategy?
- What were the key success factors and what were the reasons for possible failures of the MCT pilots and the Forum for collaboration (lessons learned)

385. To answer the first two questions one needs to define and agree with stakeholders at all levels what is meant by “development” (social, economic and cultural) and identify observable indicators that will measure as many dimensions as possible of development at the following levels:

- user level
- MCT level
- community level
- project level
- institutional level
- national level
- International level

386. The pilot especially aims at empowering rural populations, particularly women and youth to participate in democratic processes and to generate contribution to “development” in terms of transfer of “indigenous knowledge” *from* the local community to all other levels, including exchange of knowledge and experience among MCT projects in Palestine and other countries.

387. Thus, indicators also need to be developed to measure:

- local capacity for informed decision-making to enhance personal, institutional and community development in the areas of health, education, economy and general development;
- the production of local information and knowledge to improve local knowledge structures and, at the same time, contribute to a better understanding at local, regional, national and

international level of the specific needs of communities.

388. The methodology calls for a combination of participatory case-studies, focus groups and data collection across projects, before (base-line study), during, and by the end of the pilot projects. It will involve all stakeholders and will rely heavily on participating MCTs and local Steering Committees' and other stakeholders' ability to continuously collect and monitor relevant data and information. The Pilot should therefore include the development and implementation of a stakeholders' learning system, to enable them to fully participate in and contribute to the evaluation.

389. The base-line study aims to get an overall picture of the specific characteristics, needs, resources and limitations of the community and the potential users/user groups and to establish the value of selected indicators before the MCT is starts to operate.

390. Thus, the base-line results will provide an input to:

- formulate specific interventions to be designed around the MCT to stimulate development;
- evaluate the project's impact on development and other outcomes (products and processes).

391. The evaluation involves also gathering information about expected and unexpected (side) effects, generated by the project. In particular, any kind of community development activity, involving people at the community level, policy development at the national level, establishment of support structures at the national and community levels, private sector participation, effects of tariff changes, if any, synergy created by coordination with development agencies, NGOs and private sector funded projects or activities should be recorded and analyzed.

392. Comparative studies of similar communities which do not have MCTs would be of great interest as such studies would facilitate the difficult task of isolating impact attributed to the MCTs from other factors contributing to change.

393. Data and information will be collected at national, institutional, project and community level and it must be recognized that stakeholder may emphasize different aspects of the evaluation and propose different indicators to measure aspects of particular interest to them.

394. Sustainability is the key issue when developing models and the financial sustainability of the MCTs must therefore also be carefully evaluated. For this purpose, it is propose that the following information be collected and monitored:

- investment costs of MCT building, facilities and resources, including installation and initial training of operators and maintenance staff, as required.
- Administration, Operation and Maintenance (AO&M) costs, including recurrent cost of connectivity and telecommunications, staff costs, consumables, spare parts, etc.
- debt servicing and other finance costs;
- tariffs for the various services offered by the MCT
- revenues for each of the services (monthly and annual);
- forecast of future revenues;
- technology used, including No. of voice and data channels, bandwidth, frequency bands,

- etc.
- quality and grade of service, including fault rate, time to repair, time to access specified Internet sites, and other quality criteria to be determined;
 - Number and duration of incoming and outgoing calls (daily, monthly, annually);
 - Traffic data;
 - sources of finance, (including loans, equity participation, partnership arrangements, government subsidies, etc.).

395. For additional proposals for indicators and sample questionnaires reference is made to Ernberg, J., 1998. Integrated rural development and universal access - towards a framework for evaluation of multipurpose community telecenter pilot projects implemented by ITU and its partners. <http://www.itu.int/ITU-D-UniversalAccess/johan/papers/guelph.htm>.

396. From the above the **sustainability and the cost-benefit** of the MCT can be assessed, taking into account also non-monetary benefits, such as improved education, health, skills and other perceived improvements

Appenix 10 – MCT Cost and reveue estimates (for one MCT)

1. At this stage it is impossible to make any accurate estimates of costs and revenues. Rough (incomplete) estimates, made on very simplified assumptions, are nevertheless made below in order to get an indication of the order of magnitude of costs and revenues.

A Cost

A1. Investment

Buildings

2. The cost of the building will depend on local conditions. It is assumed that the land and the building are provided by the community as a local contribution to the MCT pilot. Financing for community buildings may also be made available through ICDP.

Hardware, software and information resources

3. As mentioned, the cost of the hardware could vary considerably depending on the requirements and level of ambition. The cost for a minimum configuration, with a total of 20 PCs, LAN, router, servers with firewall, UPS, basic PC software and a library of CD-ROM and printed material, as well as a VTR, a photocopier, a scanner and a digital camera is estimated to some **US\$ 50,000**.

4. However, a more typical configuration for a fully-fledged MCT may be as follows:

MCT proposed equipment list and cost estimates

Usage	Equipment	Cost US\$
Training room	10-12 PC's, 1 printer, 1 scanner, 1 LCD projector, 1 sliding wall,	30,000
Internet room	10-15 PC's, 1 printer, 1 scanner	25000
Customer service place	1 PC, 1 fax, 1 copier, 1 scanner, shelves for books and CD's	5000
Admin	2 PC's, 2 printers	5000
Other	1 server, 1 router, 1 switch hub, 1 UPS of 10-15KVA, Alarm system, network and UPS Wiring, VCR, Video digital camera, regular camera, Software, ISDN/ DLL installations	35,000
	Total	100,000

(Source: USAID, Palestine)

397. In this estimate we will use the lower figure (US\$ 50,000), bearing in mind that with 15 MCTs one should be able to obtain significant volume discounts and that the MCTs should build up gradually to meet the growing demand.

Connectivity

5. The cost of telecommunication infrastructure, i.e. cable network, fiber optics or, possibly solar powered VSATs, switches, routers, etc., will vary significantly from site to site depending on available infrastructure and geographical location. Rather than trying to estimate the investment we will at this stage use the typical costs of renting a leased line (see A2 below).

A.2. Annual operation, depreciation and maintenance costsDepreciation costs

6. Assuming the lower estimate above (USD 50,000) for hardware and SW that the PCs and the other hardware need to be replaced every 3 years, on the average (PCs perhaps every two years - other hardware may last longer) the annual depreciation costs would be appr. US\$ 17,000.

7. Depreciation of the building is not taken into account in this rough estimate.

Staff

8. The annual cost of four staff, as indicated above, is estimated to some US\$ 36,000.

9. The annual cost of a trainer (one man-year/year) is estimated to US\$ 12,000

Annual cost of software and information resources and consumables (paper, etc.)

10. The annual cost of adding new software, CD-ROMs and printed information and knowledge resources is estimated to US\$ 5,000

11. Annual cost for maintenance and repair, including spare parts

Routine maintenance should be carried out by MCT (or LGU) staff but it is assumed that higher-level maintenance and support is contracted out. Estimated annual cost; US\$ 5,000

Connectivity and Internet access

12. The annual cost of a leased line and fees to the ISP is estimated to some US\$ 10,000.

Total annual cost

13. Following the estimates above, the annual cost would amount to US\$ 86,000.

14. This cost does not include cost of initial training of MCT staff or marketing costs, which are likely to be very significant, as a great deal of awareness and capacity building will be required. Nor does it include building depreciation and maintenance costs, project overhead cost and the cost of evaluation, which is an important aspect of the pilot.

B. Revenues, subsidies and financial sustainability**B. Revenues**

15. Initially, the major revenue streams will, most likely come from telephony services, Internet access services and provision of vocational training courses. However, these estimates will obviously depend on the information and services offered and on the type and number of users

and their use pattern. Revenue estimates would vary between locations even more than the costs and accurate estimates cannot be given at this point of analysis. In general, revenues can be generated through direct charges per unit service or information received, or through membership fees.

16. Below some rough estimates of the order of magnitude for three major services has nevertheless been made in order to get some feeling for the financial sustainability of the MCT.

17. Initially, the major revenue streams will, most likely come from telephony services, Internet access services and provision of vocational training courses. At this stage any revenue estimate has to be based on experience from other countries (telephony) and from current tariffs for training courses and Internet café rates in the West Bank and Gaza, and guesses about the demand.

Telephony

18. Experience from other developing countries indicate that a heavily used public phone can generate an annual income of about US\$ 2 k (when the telecom operator has been paid his share of the total revenue). Assuming two public phones in the MCT, this would generate annual revenues of: US\$ 4,000.

Internet

19. One Internet café manager in Gaza City indicated that they make about US\$ 100 per day with an average of some 300 paid customers-hours per day. With the same number of customers and applying the same tariff (3 NIS/hour) the MCT would have an annual revenue from Internet services of about: US\$ 30 000 (assuming the MCT is open 300 days per year).

20. However, assuming that the PCs are used effectively 200 hours per day (because not all clients use up the whole hour, which is the minimum they have to paid for) and that the center is open 10 hours a day, this would required 20 PCs only for this purpose. Adding more space and PCs would increase the cost somewhat. Therefore, the annual revenue from Internet services is estimated to US\$ 20,000

Training courses

21. Current charges for training courses vary considerably but a typical charge by those who conduct courses under non-commercial terms seems to be around US\$100 per student for a course of 36 hours. Assuming that 10 such courses are run per year with 20 students in each (there could be up to two students for each PC), the annual revenue from training courses would be some: US\$20,000k.

Total annual revenues

22. Total revenues for the three services (with the above very uncertain assumptions) would amount to US\$ 44,000 (once the capacity and demand in the community has been developed).

23. Note that the revenues the first three years probably will be considerably less.

C. Subsidies and financial sustainability

24. The above estimate does not take into account that MCTs will have to provide most services free of charge during a promotion period of probably several months until some demand has developed, which can sustain the MCT operation. Municipalities, which decide to establish a MCT, will have to be prepared to provide substantial and long-term subsidies if access and services are intended to benefit the poorer and less privileged members of a community, in analogy with maintaining and staffing a primary school. These subsidies could take the form of lower, non-commercial rates for some of the services offered or some hours of free access to the center for certain strata of the population.

25. On the other hand potential revenues from other services, such as business support, video rental and viewing, and other potential side business, like sales of computer accessories and consumable, repair services, etc. have not been included in the estimate above.

26. Notwithstanding, the above rough estimates of costs and revenues indicate that the costs will not be recovered, unless the MCT also charges the information providers, including the government, who could also substantially benefit from using the MCT facilities. It would be logical to demand that information providers pay for making their contents available in the MCTs, if this generates business for them or save costs. The government and the community, for example, would then pay the MCT for using its facilities to deliver public services, such as distance education and telemedicine and GoL. This would be justified if it can be shown that the MCT is a cost-effective way to do this, which would enable the government and community to make savings elsewhere and improve their services.

27. Financial sustainability, a key parameter for the success of telecenters, would thus depend on the genuine, substantial, and long-term financial and organizational commitment of the municipality/community that owns the center.

Appendix 11 - Project Components

Not included

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