International Telecommunication Union

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HONG KONG

RECOMMENDATION IMPLEMENTATION ANALYSIS

TELECOMMUNICATION DEVELOPMENT SYMPOSIUM

HOSTED BY THE GOVERNMENT
OF THE PEOPLE'S REPUBLIC OF CHINA

TELECOM ITU

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The views expressed in the report are those of the authors and do not necessarily reflect the opinions of ITU or its membership.

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1 Introduction

Asia has one of the fastest growing and most innovative communications market in the world and has become the focus of attention for both developed and developing countries. Technological innovation, new services and rising business and consumer expectations in the region represent key challenges to the future evolution of policy and regulatory frameworks.

ITU TELECOM brings together the most influential representatives of governments and the telecommunications industry for the sharing of ideas, knowledge and technology for the benefit of the global community, and in particular the developing world.

The ITU TELECOM Forum is the only global event of its scale bringing together high-ranking representatives from industry and government to discuss and shape the future of the telecom industry. CEOs, government ministers, policy-makers, regulators, financiers and technical specialists will use the Forum at ITU TELECOM ASIA 2002 to define what is possible and what must be done in real terms to accelerate the development of the telecom industry in the Asia-Pacific region.

For ITU TELECOM ASIA 2002, as for ITU TELECOM 99, ITU TELECOM AMERCICAS 2000, ITU TELECOM ASIA 2000 and ITU TELECOM AFRICA 2001, a survey based on the Telecommunication Development Symposium (TDS) recommendations was sent out to 43 countries. A ratio of about one to two countries responded and communicated their results. The questionnaire was put together and the answers were analysed with the support of the global consulting and technology service firm Cap Gemini Ernst & Young.

The main purpose of this report is to evaluate how the various Member States perceive the evolution of the issues that were addressed during the last Forum, and to gather their expectations. The analysis is made of the following four main sections:

- The assessment of the progress made by ITU's Member States in implementing the various recommendations made during TELECOM 95 and INTERACTIVE TELECOM 97 aiming at developing the Information Society; this year results being compared to the ASIA 2000 survey results. Moreover, the effective impact of these recommendations is highlighted.

- The assessment of the progress made by ITU's Member States in implementing the recommendations made during the joint Working Group on Universal Access and Tele-applications at ASIA 2000; a special focus being put on telecentre development in the region.

- The assessment of the effective role of ITU in promoting the various recommendations and in providing the adequate supporting tools to reach the objectives set.

- The assessment of the current and future expectations of the Fellows with regards to both the development of telecommunications and to the Developing Countries Forum in the near future.

This report is not intended to present policies or strategies, but to present the views of the surveyed Member States while providing valuable input to the participants of future TDS sessions.

2 Developing countries and the Information Society

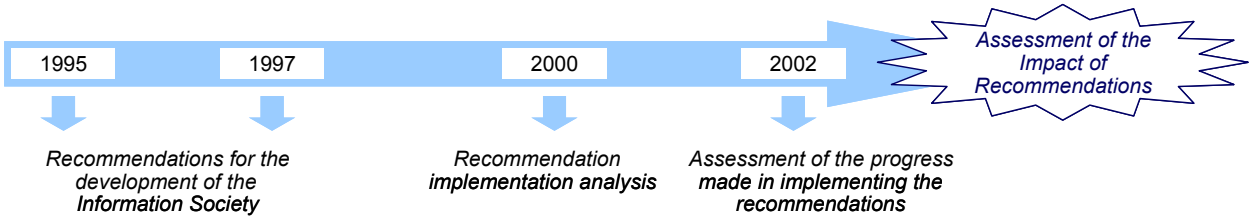
2.1 Background

The first 4-year cycle of the TELECOM Development Symposium Programme (TDS) is now complete. Consequently, before ASIA 2002, the TDS seeks to assess the progress made by ITU's Member States in implementing the various recommendations made by the Working Groups.

Those results will be compared to the result of the ASIA 2000 survey in order to assess the progress made during the past two years and the overall evolution in the region.

Finally, this year's survey aims at assessing the effective impact of the recommendations – understanding which recommendations are successful drivers for the development of the Information Society – when they have been implemented.

The following figure summarizes the various follow-up steps regarding the recommendations about the Information Society development.

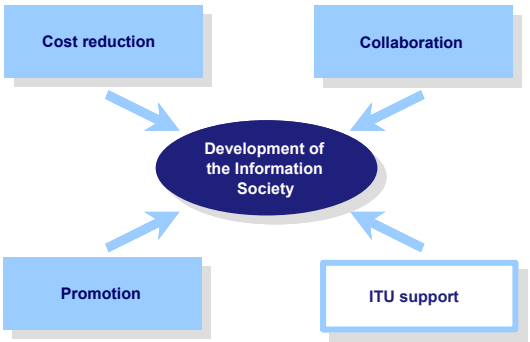


During TELECOM 95 and INTERACTIVE TELECOM 97, it was recognized that the road to the Information Society is not straight but raises many economic, social, cultural and political concerns. The following recommendations were passed:

– Reduce the costs of set-ups, of equipment and of tariffs for end-users;

– Promote the use of the Internet by creating new value rather than only content;

– Collaborate with neighbours in order to take advantage of synergies.



It also appeared clearly that ITU has a key support role to play in answering and solving some of these problems, notably by organizing regular forums. The following sections present the survey results.

2.2 Consolidated results of the 2000 and 2002 surveys

The overall results of the survey are presented in the figure below. The percentage indicates the proportion of countries that have chosen at least a specific combination of initiatives. The 2002 results are compared with the results obtained for the ASIA 2000 survey.

Initiatives	1 initiative			2 initiatives			3 initiatives
Cost-reduction programmes	✓			✓	✓		✓
Promotion		✓		✓		✓	✓
Collaboration with neighbours			✓		✓	✓	✓
% of countries in 2000	82%	65%	53%	65%	47%	42%	42%
% of countries in 2002	83%	94%	83%	83%	72%	83%	72%

Figure 1 – Evolution of the implementation of recommended programmes

On average, the degree of implementation of the recommendations in the region has slightly increased: 94% of the surveyed countries declare promoting the use of the Internet (versus 65% in 2000) and 83% declare collaborating with neighbours to develop synergies (versus 53% in 2000).

Moreover, 72% of the surveyed countries declared having implemented the 3 initiatives compared to only 42% two years ago. It clearly appears that the recommendations made must be seen as long-term programmes – taking 5 to 7 years to reach region-wide coverage – thus requiring long-term set-up support and ongoing monitoring.

Please note that the figures are the regional average as the countries that answered may not be the same for the ASIA 2000 and 2002 surveys. The following sections detail the results for each of the recommendations.

2.3 Recommendations aiming at reducing costs

It was recommended that countries consider lowering costs by using existing infrastructures, website caching, off-line services and applying new satellite technologies. It was also recommended that taxes and duty on equipment imports be cut, and usage tariffs be reduced in order to boost demand.

The latter advocated that Internet tariff structures should be cost-based, in order to avoid both extremes – high tariffs that would restrain network usage and low tariffs that would not yield sufficient revenue to allow new investment in infrastructure.

Evaluation of this recommendation is based on: (i) efficient use of existing technology; (ii) reduction of taxes and duties on equipment imports; and (iii) tariff reductions.

The ITU TELECOM ASIA 2000 survey showed that a very large portion of the countries (82%) had put in place at least one of these recommendations. The cost-reduction methods that have been implemented so far are shown in the following figure and compared to the ASIA 2000 results.

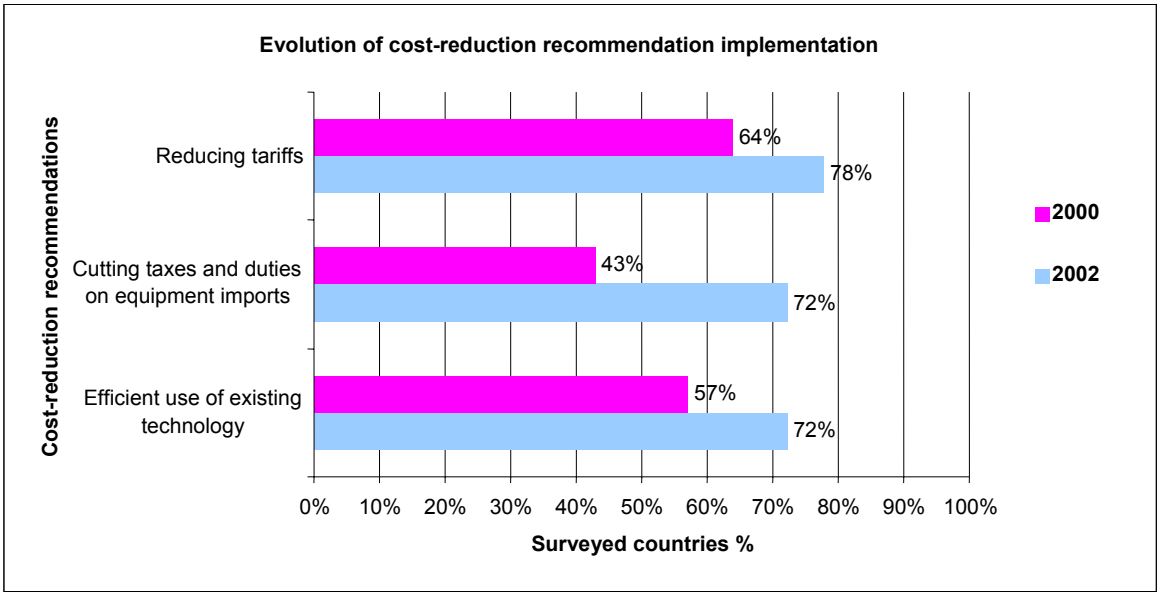


Figure 2 – Evolution of the implementation of recommended cost reduction methods

According to the given answers, it appears that in 2002 each of the cost-reduction recommendations has been implemented by more than 70% of the surveyed countries – a limited increase compared to ASIA 2000 results.

2.4 Recommendations aiming at generating new value for promotion of the Internet

One recommendation suggested that the Internet is not an end in itself and that the objective is not to create content but to create value.

The following key criteria were used for the evaluation:

– Creation of a competitive market for Internet service provision

– Creation of a competitive market for the provision of leased-line services

– Encouragement of favourable tariff strategies in the public telephone network

– Promotion of applications (e.g. virtual e-mail addresses for all students)

– Use of government/academic procurement to prime the Internet backbone network

– Collaboration with neighbours to establish regional Internet hubs

– Encouraging the creation of local content.

The ITU TELECOM ASIA 2000 survey showed that two to three countries had implemented at least one of these recommendations. At this time, countries commented on the main barriers to their Internet development process. Three main barrier categories were identified:

– Financial barriers: these include most notably high cost of leased lines and high cost of computers and equipment relative to household income.

– Technological barriers: the main obstacles mentioned were lack of adequate human resources, inadequate infrastructure for customer demand and international technology standards, language barriers and low connection speeds.

– Market structure barriers: these included mainly low usage and penetration of computers in the domestic arena, small customer base and high communication costs for people in remote areas.

In 2002, 94% of the surveyed countries declare having implemented at least one of these (versus 65% in 2000). The following figure compares ASIA 2000 survey and ASIA 2002 survey results.

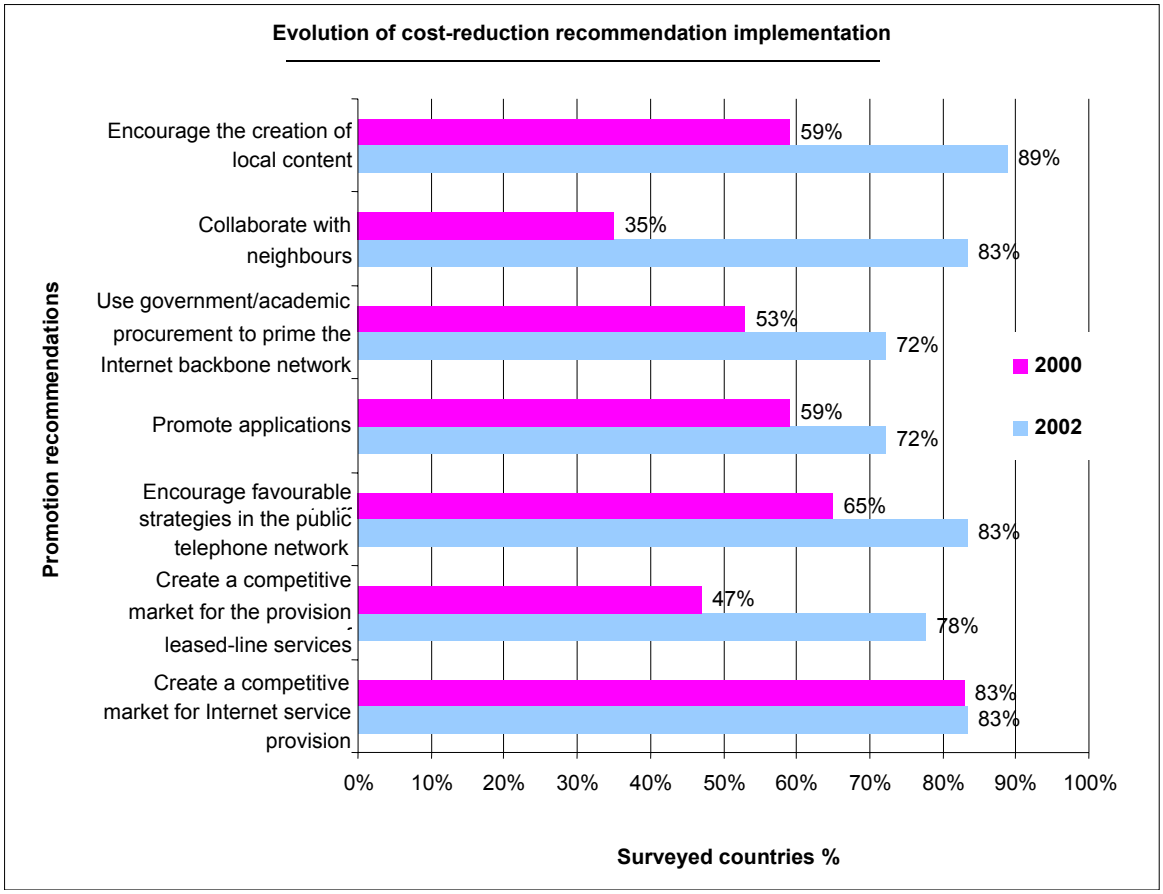


Figure 3 – Evolution of the implementation of recommended promotion methods

The above results and evolution are very encouraging, as on average the degree of implementation has increased for all proposed actions and has reached a high level of adoption in the region.

2.5 Recommendations aimed at increasing collaboration with neighbours

It was recommended that collaboration between neighbouring countries within subregions and regions should be expanded. The use of regional Internet societies, associations and conferences should be promoted. The recommendation also suggested that small countries may achieve economies of scale by uniting efforts with neighbouring countries in order to constitute a more attractive market to equipment vendors. Also, within a given country, a similar economy of scale could be achieved by negotiating multi-annual contracts with potential suppliers.

The following figure compares the results of ASIA 2000 and ASIA 2002 surveys regarding the implementation of collaboration recommendations.

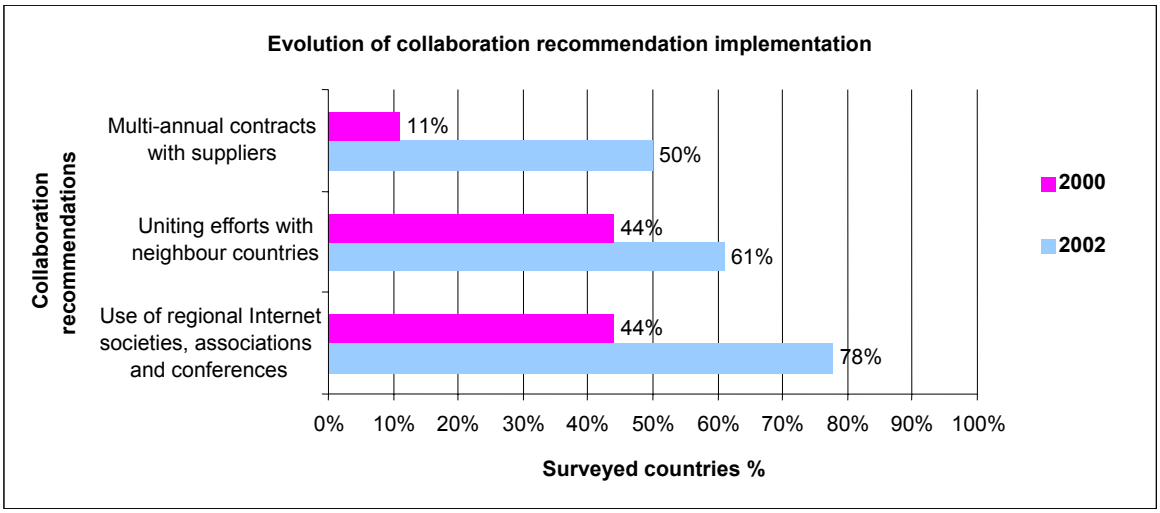


Figure 4 – Evolution of the implementation of recommended collaboration methods

In 2000, lack of coordination and communication between countries, differences in market needs and states of economic development seemed to be the main barriers to international collaboration, although only a few countries expressed any difficulties at all. In particular, when it came to uniting efforts with neighbours in order to benefit from economies of scale by providing a more attractive market for vendors, the differences in the needs of each country were regarded as an important obstacle.

According to 2002 answers, those barriers remain for many countries; nevertheless some of them seem to have been overcome today. Regional Internet societies and associations especially seem to be leveraged more efficiently as a vector for collaboration.

2.6 Assessment of the impact of the implementation of recommendations

The objective of this section is to understand the effective impact (or success so far) of the recommendations on the development of the Information Society in the surveyed countries.

The countries were asked how they evaluate the impact of the various recommendations: very positively, positively, no impact or negatively.

Firstly, regarding cost reduction, the most successful action so far seems to be the reduction of usage tariffs. Some 78% of countries declared having worked in this direction and 100% of these declared the impact is positive or very positive. In most countries, lowering monthly the average price of Internet subscriptions is seen as the key factor to boost demand for Internet access.

Secondly, regarding the promotion of the Internet, 83% of the surveyed countries are actively supporting the creation of a competitive market for Internet Service Provision. Some 56% mentioned a very positive impact on Internet use.

Finally, in terms of collaboration with neighbours, the use of regional Internet societies, associations and conferences has taken off, rising from 44% in 2000 to 78% of surveyed countries in 2002. About 80% of countries declared those cooperation catalysts have a positive or very positive impact on the coordination and communication between countries.

The figure below compares the success of the various recommendations by weighted score. The scale used is the following: Very positive: 2 points, Positive: 1 point, No impact: 0 points, Negative impact: –2 points.

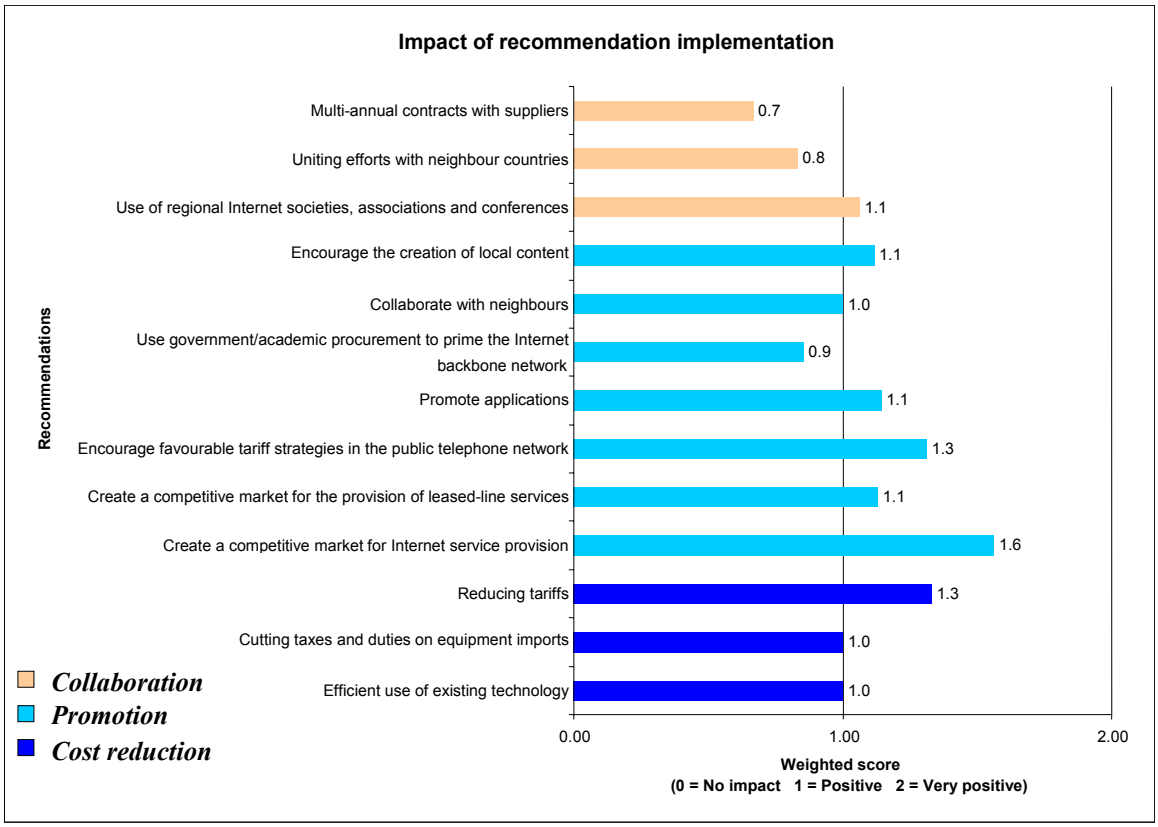


Figure 5 – Impact of the implementation of recommendations

2.7 Findings summary

The figure below summarizes the findings of both ASIA 2000 and ASIA 2002 surveys in terms of evolution of the implementation coverage and in terms of success in effectively supporting the development of the Information Society in the region. Mapping used for implementation degree was: Low = 0% – 50%, Medium = 51% – 75%, High = 76% – 100%. Mapping used for success: Low = 0 – 0.66, Medium = 0.67 – 1.32, High = 1.33 – 2.

	Implementation degree		Success
	2000	2002	2002
Efficient use of existing technology	*Medium 57%*	*Medium 72%*	*Medium 1.0*
Cutting taxes and duties on equipment imports	*Low 43%*	*Medium 72%*	*Medium 1.0*
Reducing tariffs	*Medium 64%*	*High 78%*	*High 1.3*
Create a competitive market for Internet service provision	*High 83%*	*High 83%*	*High 1.6*
Create a competitive market for the provision of leased-line services	*Low 47%*	*High 78%*	*Medium 1.1*
Encourage favourable tariff strategies in the public telephone network	*Medium 65%*	*High 83%*	*High 1.3*
Promote applications	*Medium 59%*	*Medium 72%*	*Medium 1.1*
Use government/academic procurement to prime the Internet backbone network	*Medium 53%*	*Medium 72%*	*Medium 0.9*
Collaborate with neighbours	*Low 35%*	*High 83%*	*Medium 1.0*
Encourage the creation of local content	*Medium 59%*	*High 89%*	*Medium 1.1*
Use of regional Internet societies, associations and conferences	*Low 44%*	*High 78%*	*Medium 1.1*
Uniting efforts with neighbour countries	*Low 44%*	*Medium 61%*	*Medium 0.8*
Multi-annual contracts with suppliers	*Low 11%*	*Low 50%*	*Low 0.7*

Figure 6 – Implementation evolution and success of recommendations aiming at developing the Information Society

3 Universal Access and Tele-applications

3.1 Background

During the joint Working Group on Universal Access and Tele-applications at ASIA 2000, it became clear to the delegates of the countries represented in this working group that the definition of Universal Access is no longer perceived as simply access to a telephone, but access to the Information Society with the services it offers. Thus it becomes natural to include discussion on tele-education, tele-health, telecentres, etc., when speaking of Universal Access.

The main conclusion was that efforts should be concentrated on providing Universal Access in its widest sense. Consequently, the very interesting experiences shared by the participants of the working group led to the formulation of recommendations applicable to policy and regulatory aspects, financing aspects, specific content creation as well as the essential role of the community.

3.2 Recommendations focusing on Universal Access

3.2.1 Survey objectives

Regarding Universal Access, the objective of the survey was threefold:

– Define Universal Access in terms of services in scope beyond fixed-line telephony – the strategic willingness.

– Assess the expected timeframe for implementation of Universal Access for those services – the operational feasibility.

– Understand how Universal Access is promoted and financially subsidized – the development support.

3.2.2 Definition of Universal Access

Question: It has been recommended to consider universal access in a broad sense and not only to simple access to a telephone. In your country, what access types are understood as being part of universal access?

Today, 83% of surveyed countries include Fixed-Line Telephony in their definition of Universal Access. The answers show that the remaining 17% (not shown in Figure 7) prefer to rely either on village phone or on wireless telephony to ensure countrywide access to basic voice services while limiting infrastructure costs. Beyond basic voice services, the most popular services for Universal Access are telecentres (56%) and narrowband Internet (44%).

The figure below ranks the various services by frequency of inclusion in the definition of Universal Access.

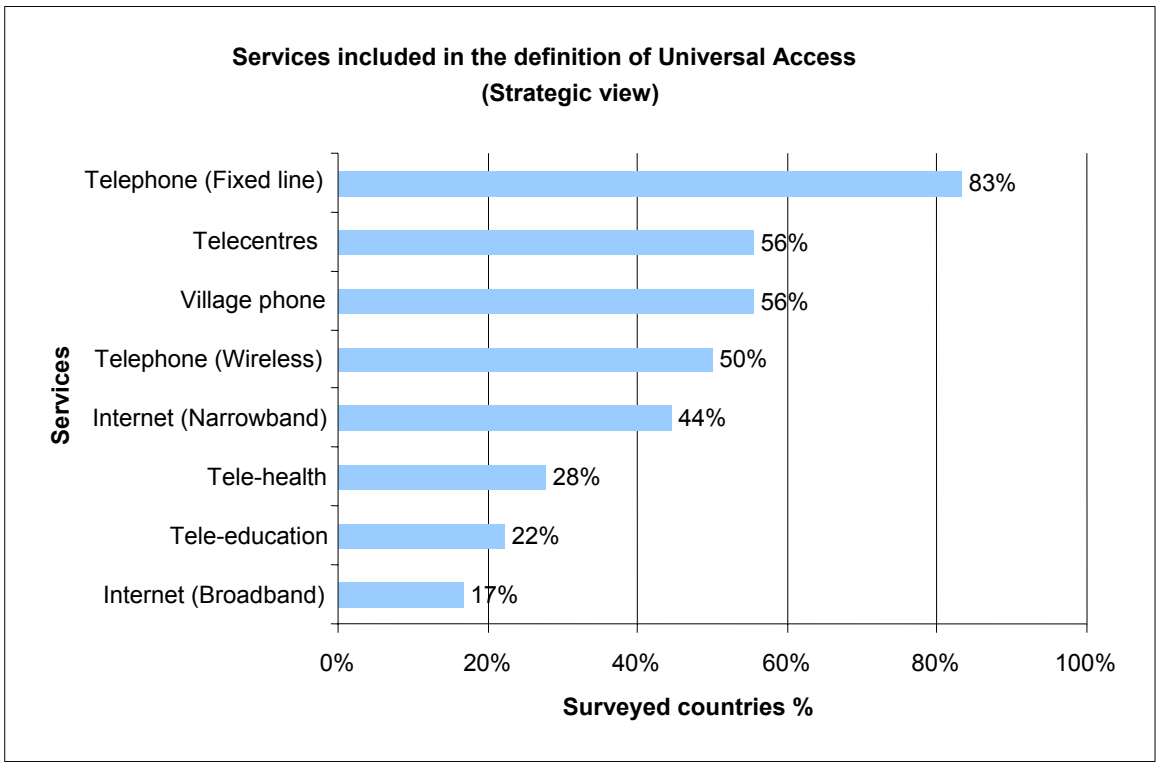


Figure 7 – Definition of Universal Access

The next section compares the strategic willingness towards Universal Access with the operational feasibility of the implementation for the various services.

3.2.3 Implementation of Universal Access

Question: Considering universal access, which activities/services are being implemented now or are planned to be implemented in your country? Possible answers: Done, Mid-term: 1-24 months, Long-term: more than 2 years, Not planned.

The figure below illustrates the operational feasibility for each service based on:

– the distribution of surveyed countries according to various implementation timeframes

– a comparison with the frequency of inclusion of the service in the definition of Universal Access as of today (horizontal line).

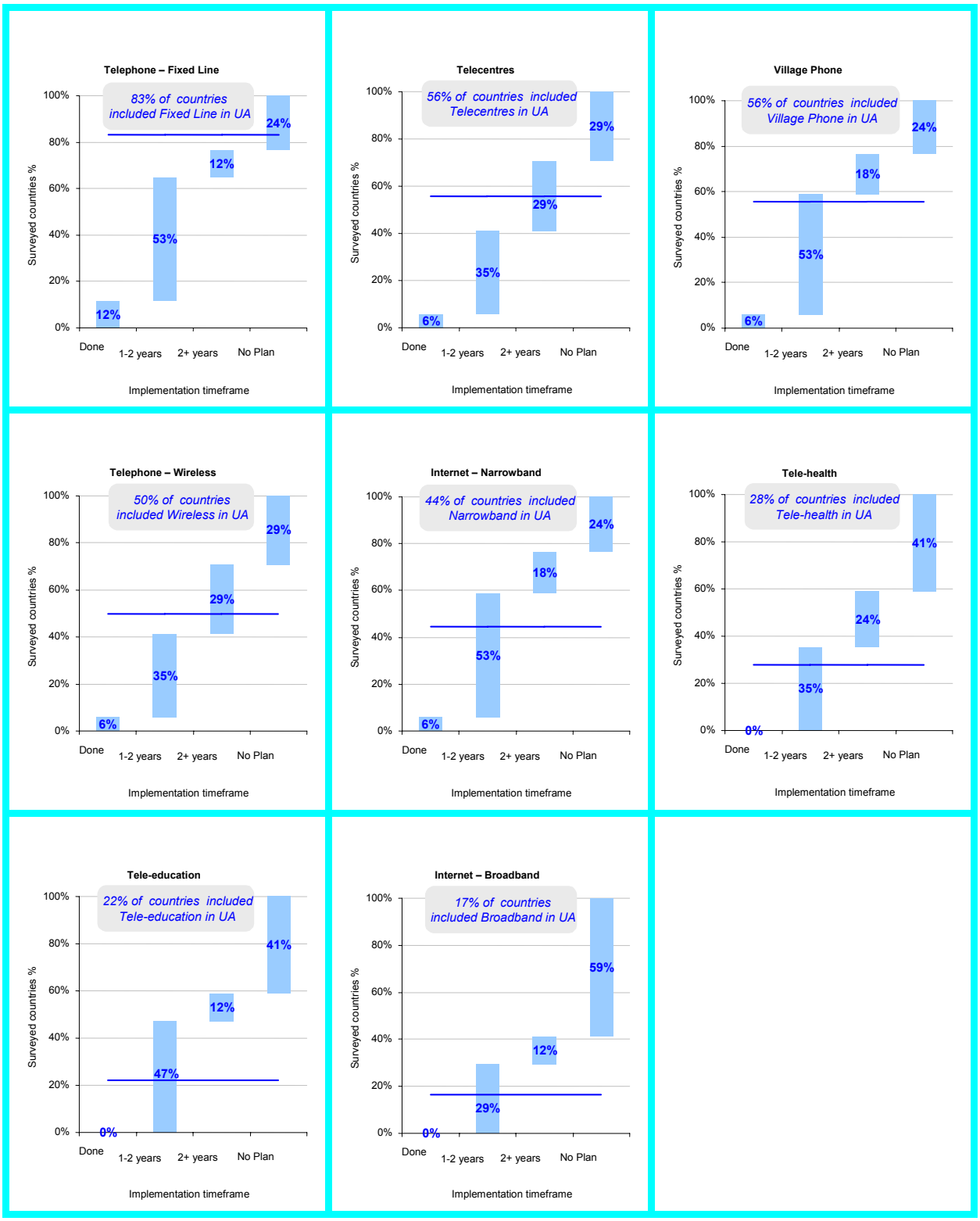


Figure 8 – Implementation path of services

As of today and for all services considered here, the results show that there is a gap between the strategic willingness to provide Universal Access and the current service implementation. For instance, considering Fixed-Line Telephony, only 12% of countries declare providing Universal Access to the service, but 83% consider Fixed-Line Telephony as mandatory for Universal Access.

Nevertheless, as illustrated in the figure below, for each service except for Internet Broadband, more than 50% of surveyed countries declared they have defined mid-term (1 to 2 years) or long-term (more than 2 years) implementation plans.

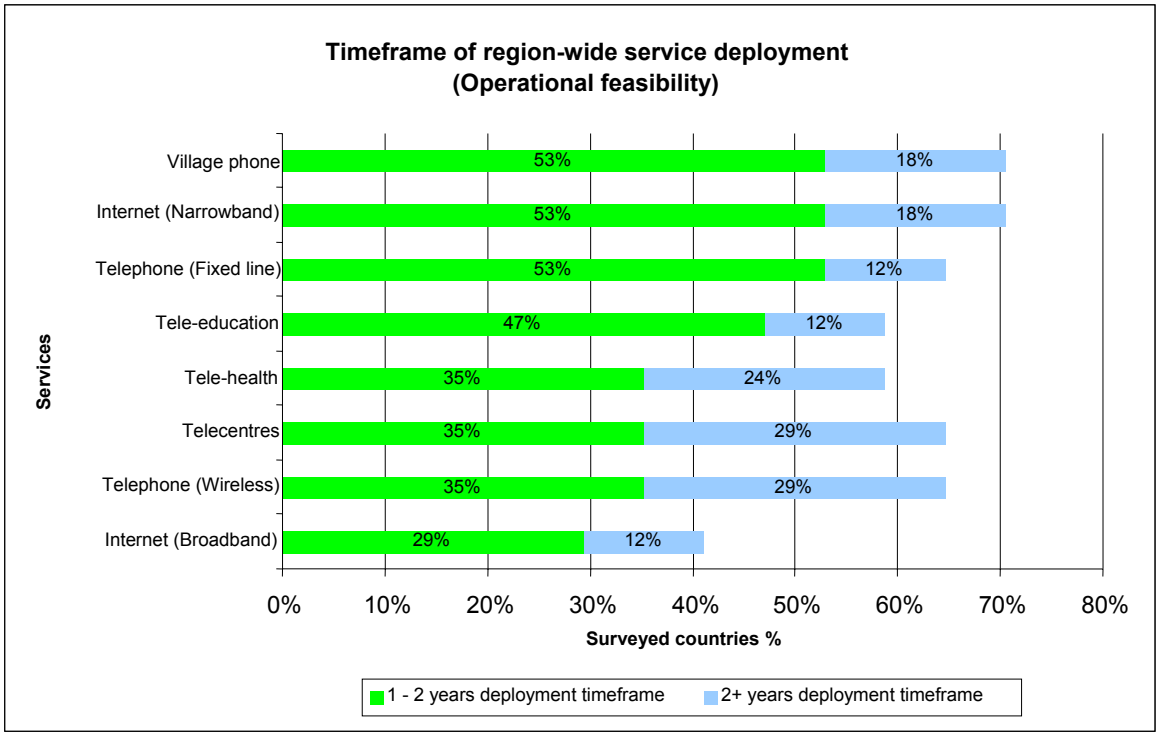


Figure 9 – Comparison of the implementation path of various services

The following matrix positions each service according to two dimensions:

– Mid-term deployment effort of the service in the region based on the percentage of surveyed countries declaring implementation plans within the next two years.

– Long-term deployment effort of the service in the region based on the percentage of surveyed countries declaring implementation plans in more than two years.

Deployment in 2+ years			
	Selective	○ *Telephone (Fixed line)* ○ *Village phone* ○ *Internet (Narrowband)*	○ *Tele-health* ○ *Tele-education* ○ *Internet (Broadband)*
	Predominant	○ *None*	○ *Telephone (Wireless)* ○ *Telecentres*
		Predominant	Selective
		Deployment for the next 2 years	

Figure 10 – Mid-term and long-term regional priorities

At region level and in the short term, fixed-line telephony, village phone and narrowband Internet are the priorities for most of the surveyed countries. A huge effort seems to be planned for the next two years to fill the Universal Access gap as soon as possible for both basic voice services and World Wide Web content access.

Wireless telephony and telecentre services deployment are planned by 35% of the surveyed countries for the next two years and should become predominant from 2005 compared to other services.

Almost 60% of the surveyed countries have planned deployment of tele-health and tele-education services at some point in time. Tele-health services are expected to be implemented gradually in the region over time while a stronger short-term focus seems to be put on tele-education services.

Finally, broadband access services have the lowest priority in both the mid and long term. Some 59% of the surveyed countries declared not having any plan so far for such a deployment.

Today, the operational feasibility of the implementation of Universal Access is still uncertain for many services in many countries.

As summarized in the following figure, we note that many countries do not include services in their definition of Universal Access but nevertheless have planned deployment initiatives for these. Except for fixed-line telephony, the percentage of surveyed countries which do NOT include the service in their definition of Universal Access is higher than the percentage of surveyed countries which have NO service implementation plan so far. For example, 56% of the surveyed countries do not include narrowband Internet in Universal Access but only 24% declare having no plan at all to deploy narrowband Internet in a near future.

Service	% of surveyed countries NOT including service in their definition of Universal Access	% of surveyed countries having NO service implementation plan so far
Telephone (Fixed line)	17%	24%
Telephone (Wireless)	50%	29%
Internet (Narrowband)	56%	24%
Internet (Broadband)	83%	59%
Village phone	44%	24%
Telecentres	44%	29%
Tele-education	78%	41%
Tele-health	72%	41%

Figure 11 – Operational feasibility of Universal Access

Therefore, we can conclude that the issue of provisioning access to services seems to be seriously tackled but not on a countrywide and universal basis at the moment.

The next section gives some insight about how Universal Access is effectively supported in the surveyed countries.

3.2.4 Promotion of Universal Access

Question: It has been recommended to encourage the development of access point, telecentres, Internet, etc. In your country, how is universal access promoted?

The figure below ranks the most-often-used Universal Access promotion methods in the region.

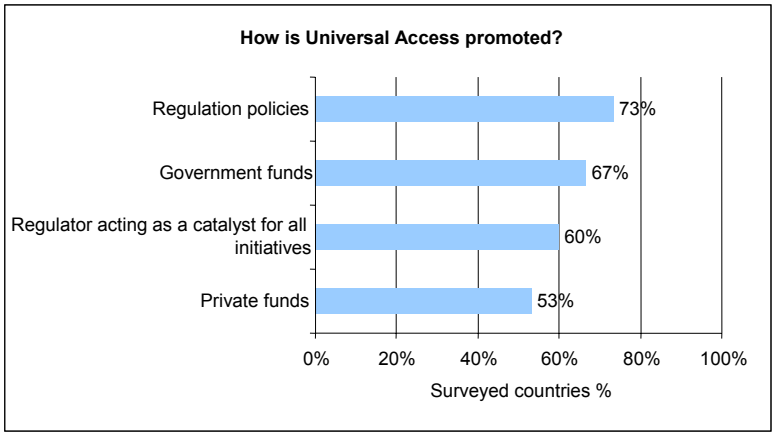


Figure 12 – Promotion of Universal Access

Within the 73% of countries which mention regulation policies as a Universal Access promotion method, 100% declared that regulation initiatives are supportive in defining goals and outcomes and 75% in making operational decisions.

Question: All universal services should aim for sustainability, though it was recognized that subsidization might be required. In your country, is Universal Access sustainable? If Not, how is the financial subsidization organized?

To the general question "*Is Universal Access sustainable?*", 59% of the surveyed countries answered "no". To a large extent, subsidization is and remains mandatory for financing the whole service delivery value chain, from infrastructure to maintenance.

The percentages on the figure below summarize the organization of subsidies allocation across the value chain in the region.

Subsidies areas	Initial infra-structure set-up	Specific staff training	Content generation/ acquisition	Operations	Maintenance
% of Surveyed countries	73%	45%	27%	36%	36%

Figure 13 – Subsidization of Universal Access

Support to infrastructure financing remains the main focus of subsidies in most countries (73%). Nevertheless, it must be noted that more than one country out of four declared that content is an area to which funds are allocated. An important move as, besides pure Internet access provisioning, local content creation and diffusion is a key driver to make the World Wide Web a useful and efficient development medium.

3.3 Recommendations focusing on telecentres

3.3.1 Survey objectives

During ASIA 2000, telecentres have been perceived as an important element to ensure the development of telecommunications in the countries as well as to bridge the digital divide.

As presented in the previous section, the results of the survey confirm this importance:

– 56% of surveyed countries include telecentres in the definition of Universal Access.

– 65% of surveyed countries declare having Universal Access plans for telecentres.

More specifically, the objective of the survey regarding telecentres was twofold:

– Assess the importance of telecentres implementations in the region and point out the related barriers.

– Understand the main drivers of telecentre initiatives.

3.3.2 Implementation of telecentres

Question: How many telecentres have already been developed in your country?

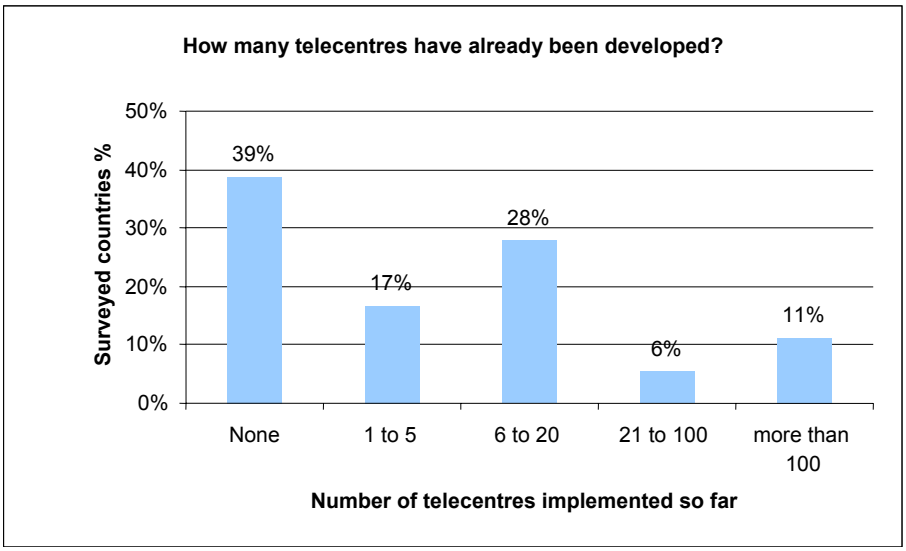


Figure 14 – Deployment of telecentres

The study shows that 61% of the surveyed countries have developed one or more telecentres so far. This result can be compared to those of the previous section: 44% of the surveyed countries do not include telecentres in the definition of Universal Access and 29% declared having no plan at all to implement any.

Moreover, when asking, *"How many are planned?"*, the analysis shows that:

– 44% of countries answer “none”.

– Within the countries which have not implemented any telecentres so far, only one has planned to develop some in the near future.

As a conclusion and according to the given answers, we can clearly identify two main groups of countries in the region:

– The countries which have moved towards telecentre implementation and will continue this way (about 2 countries to 3).

– The countries which did not develop telecentres and do not plan to do so (about 1 country to 3). In that case, the following question was asked:

Question: If you have not yet developed telecentres or if you experience problems in the development of telecentres in your country, what are the main barriers?

The figure below summarizes the importance of the main potential barriers to telecentre development in those countries that had not started implementing so far.

Barrier	Cost of infrastructure	Geographical constraints	Regulatory issues
Surveyed countries %	91%	64%	27%

Figure 15 – Barriers to telecentre deployment

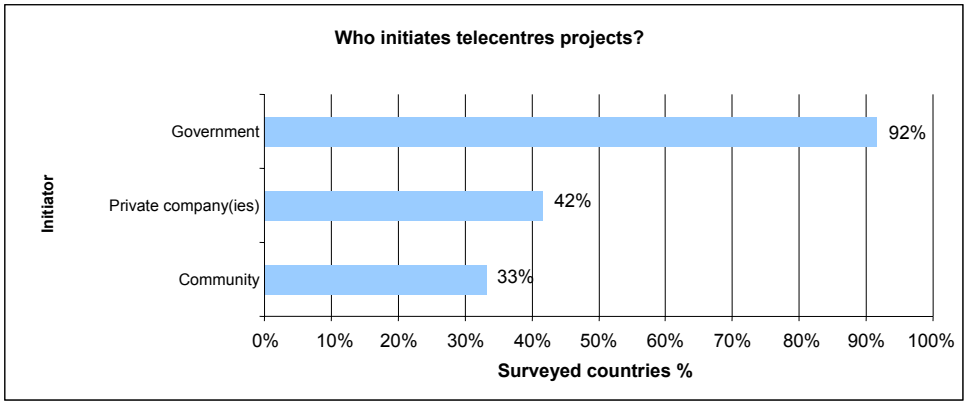
3.3.3 Drivers of telecentre initiatives

The following questions were put to the countries which have implemented telecentres in order to better circumscribe telecentre initiatives.

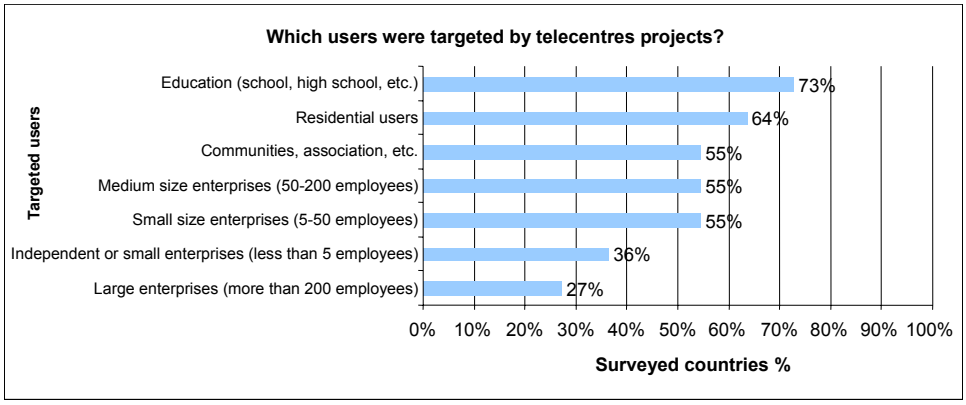
Questions:	Who was the initiator of the telecentre projects? For which users were they developed or planned? Who are the actual users? Who are the actual staff members working at the telecentres? What kinds of sites are used?

The figure below summarize the findings of the survey and gives a snapshot of the main drivers of telecentre projects in the region.

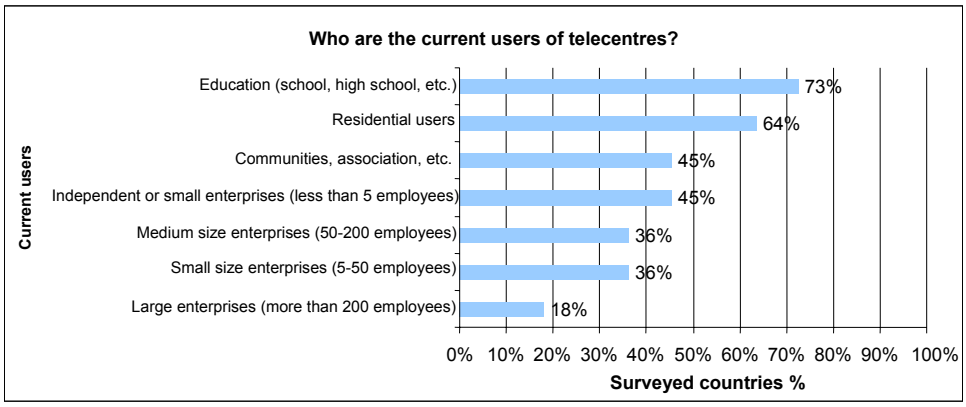
Who was the initiator of the telecentre projects?



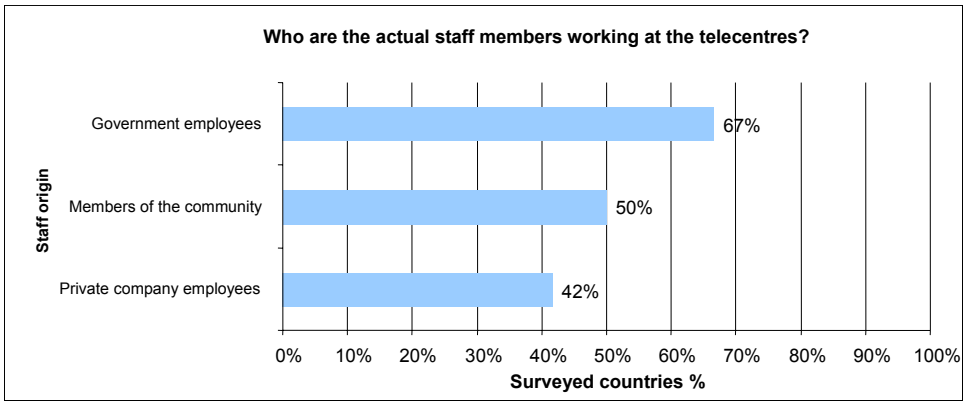
For which users were they developed or planned?



Who are the actual users?



Who are the actual staff members working at the telecentres?



What kinds of site are used?

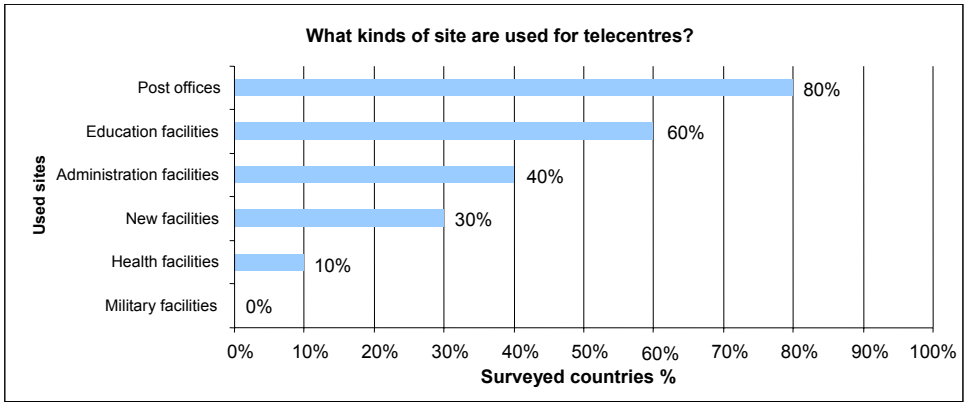


Figure 16 – Drivers of telecentres deployment

Finally, considering again telecentres, it has been recommended to not only focus on the infrastructure but also on the content.

***Question*:** Did you design integrated projects allowing the creation and dissemination of appropriate content to various communities?

Globally, 50% of surveyed countries declared having designed integrated projects allowing the creation and dissemination of appropriate content to various communities. More specifically, about 20% designed integrated projects for agriculture, about 20% for health and about 45% integrated projects for education.

4 Assessment of the contribution of ITU

4.1 Promotion of ASIA 2000 recommendations

4.1.1 Survey objectives

In order to obtain feedback after ITU TELECOM ASIA 2000 on the support role played by ITU, and in particular on the promotion of the recommendations made, the following questions were included in the questionnaire:

– How do you perceive the promotion by ITU on the subject of universal access?

– How do you perceive the work done by ITU to encourage governments to consider the implementation of telecentres?

– How do you perceive the work of ITU on taking the lead to integrate the various sectors implied in the planning and implementation of telecentres?

4.1.2 Results of the survey

The analysis of the survey answers is summarized below.

ITU promotional role	Very good	Good	Weak	Very weak
Accuracy of the promotion of Universal Access	11%	61%	17%	11%
	72%		28%	
Accuracy of the promotion of tele-education	13%	50%	25%	13%
	63%		37%	
Accuracy of the promotion of tele-medicine	7%	53%	27%	13%
	60%		40%	
Accuracy of the promotion of telecentres	13%	50%	19%	19%
	63%		38%	
Efficiency in encouraging governments to implement telecentres	18%	41%	29%	12%
	59%		41%	
Efficiency in federating the sectors implied in the deployment of telecentres	6%	53%	24%	18%
	59%		41%	

Figure 17 – ITU contribution in promoting ASIA 2000 recommendations

The overall rating of ITU's promotional role in supporting ASIA 2000 recommendations is positive. Indeed, about 70% and 60% of the countries assessed ITU's role as *good* or *very good* for promoting Universal Access and telecentres respectively. Please note that the weighted score in Figure 18 has been adjusted by computing the percentage on the countries that actually answered.

Given the importance which is given to telecentres by the surveyed countries – about 65% have plans to develop some – special attention should be paid by ITU on the promotion of this topic.

The figure below compares the various items by weighted score. The scale used is the following: Very good: 3 points, Good: 2 points, Weak: 1 point, Very weak: 0 points.

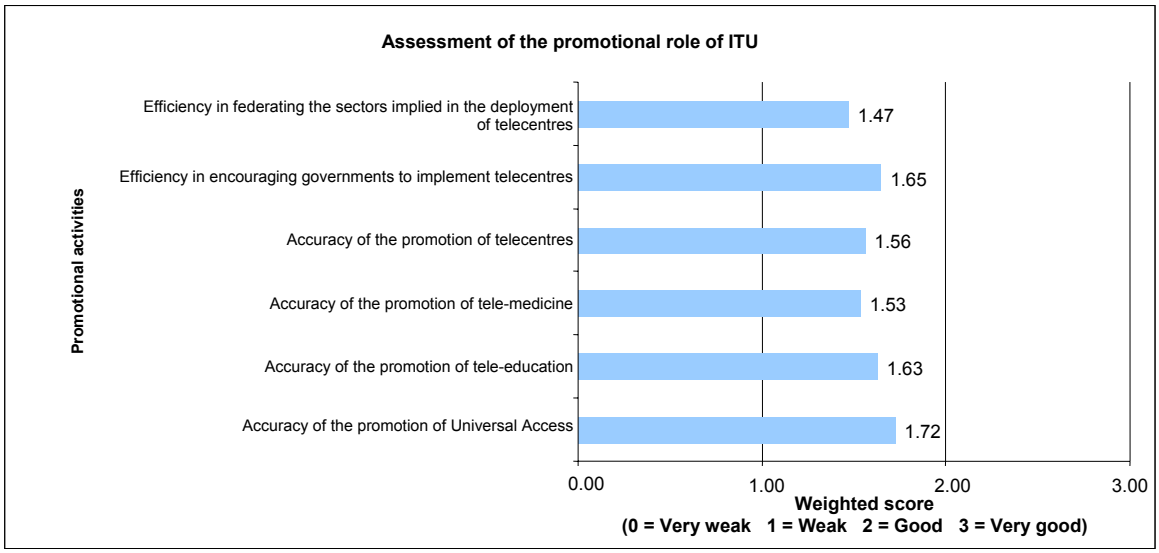


Figure 18 – ITU contribution in promoting ASIA 2000 recommendations (weighted)

4.2 Overall support to countries

4.2.1 Survey objectives

In order to assess the overall support role played by ITU, and in particular on its communication process with participating countries and the appropriateness of its publications with regards to their needs, the following questions were included in the questionnaire:

– It has been recommended that the members of the working party should have had a better knowledge of the participating countries of the Forum in order to adapt their work and presentations accordingly. How has this knowledge been improved for your country?

– Regarding technical cooperation requirements, how efficient is your country communication process with ITU?

– How accurate is your information about ITU publications?

– How do you perceive the information available on the website of ITU (**www.itu.int**)?

– How do you perceive the role of ITU as a development catalyst/tool for your country?

– How do you perceive the role of the ITU TELECOM Development Symposium (TDS) as a development catalyst/tool for your country?

4.2.2 Results of the survey

The analysis of the survey answers is summarized below.

ITU overall support	Very good	Good	Weak	Very weak
Improvement of the knowledge of the Forum participants	7%	57%	21%	14%
	65%		35%	
Efficiency of the communication with ITU regarding technical cooperation	17%	67%	17%	0%
	83%		17%	
Accuracy of the information about ITU publications	11%	56%	33%	0%
	67%		33%	
Usefulness of the information available on the ITU website	28%	67%	6%	0%
	95%		5%	
Efficiency of ITU as development catalyst of countries	28%	61%	11%	0%
	87%		11%	
Efficiency of TDS as development catalyst of countries	29%	65%	6%	0%
	94%		6%	

Figure 19 – ITU overall support to countries

The figure below compares the various items by weighted score. The scale used is the following: Very good: 3 points, Good: 2 points, Weak: 1 point, Very weak: 0 points.

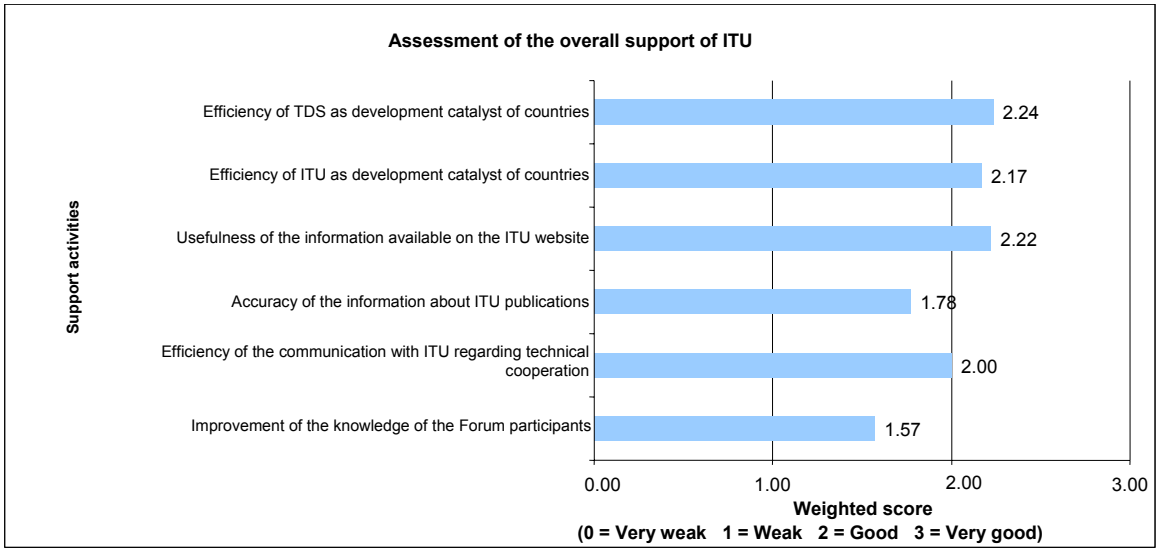


Figure 20 – ITU overall support to countries (weighted)

The results of the assessment are very positive. The two main components which must be highlighted here are (1) the usefulness of the information available on the ITU website and (2) the efficiency of TDS as development catalyst for countries. Both elements were evaluated as *good* or *very good* by 95% and 94% of the surveyed countries respectively.

On the other hand, 35% of the surveyed countries expect that ITU improves the knowledge about the Forum participants; they highlighted the importance of having the largest possible attendance to the Asia event to be able to maximize information and experience sharing.

Some 33% mentioned that the accuracy of the information about ITU publications could be improved; the most often mentioned reason was that the ITU publications were not up-to-date enough.

5 Assessment of the expectations of the Fellows

5.1 Background

In order to increase the efficiency and relevance of ITU's activities, and in particular for the future recommendations to be in line with the expectations of the Fellows, it is important that the needs and expectations of participating countries are well understood.

Hence, this section is dedicated to assessing current and future expectations of the Fellows. In the first part, countries were asked to comment on their expectations from ITU with regards to the development of telecommunications, whereas in the second part, they are asked what they expect from the Developing Countries Forum in the near future.

5.2 Expectations relative to the development of telecommunications

5.2.1 Survey objectives

In order to assess what the Member States are concretely expecting from ITU, they were asked about the usefulness of the following potential actions ITU could undertake or re-enforce:

- To raise the level of awareness of decision-makers concerning the role of telecommunications
- To promote the development of telecommunication networks and services
- To mobilize resources to provide assistance to developing countries
- To accelerate the transfer of technologies
- To provide information and advice on policy and structural options
- To carry out studies on telecommunication issues
- To cooperate with other organizations
- To provide accurate programme supervision and technical advice
- To provide people training and specific skills capacity building for the Fellows

5.2.2 Results of the survey

The analysis of the survey answers is summarized below.

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To raise the level of awareness of decision-makers about telecom role	44%	44%	11%	0%
	89%		11%	
To promote the development of telecom networks and services	28%	56%	17%	0%
	84%		17%	
To mobilize resources to provide assistance to developing countries	39%	33%	22%	6%
	72%		28%	
To accelerate the transfer of technologies	28%	39%	22%	11%
	67%		33%	
To provide information and advice on policy and structural options	22%	50%	22%	6%
	72%		28%	

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To carry out studies on telecommunication issues	11%	61%	22%	6%
	72%		28%	
To cooperate with other organizations	12%	59%	29%	0%
	71%		29%	
To provide accurate programme supervision and technical advice	6%	56%	31%	6%
	62%		38%	
To provide people training and specific skills capacity building for the Fellows	28%	50%	17%	6%
	77%		23%	

Figure 21 – Expectations relative to the development of telecommunications

The figure below compares the various items by weighted score. The scale used is the following: Imperative: 3 points, Very useful: 2 points, Useful: 1 point, Not a priority: 0 points.

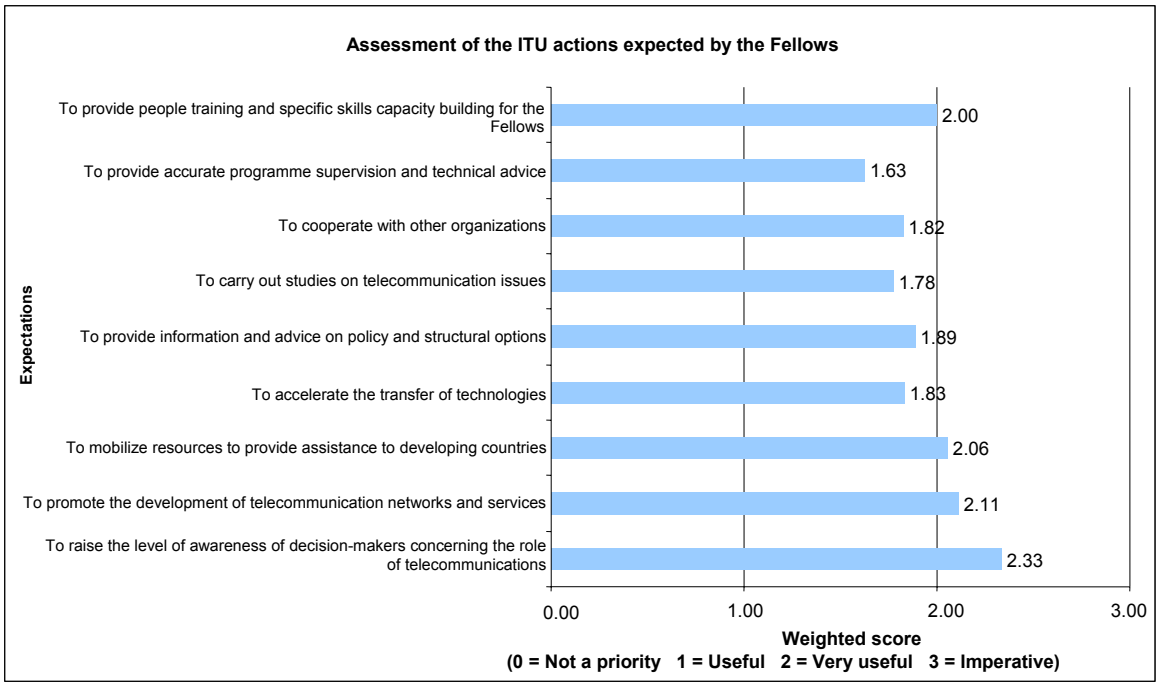


Figure 22 – Expectations relative to the development of telecommunications (weighted)

As a result, the top three actions expected by the Fellows from ITU are (1) to raise the level of awareness of decision-makers concerning the role of telecommunications, (2) to promote the development of telecommunication networks and services and (3) to mobilize resources to provide assistance to developing countries.

Please note that, regarding cooperation, the Fellows expect ITU to build closer links with third-party organizations. They mention among others Asia-Pacific Telecommunity, Asia Development Bank and IETF.

As shown in the figure below, regarding the publication of studies on telecommunication issues, wireless and data communication are the topics ITU is expected to focus on first. The scale used is the same as previously.

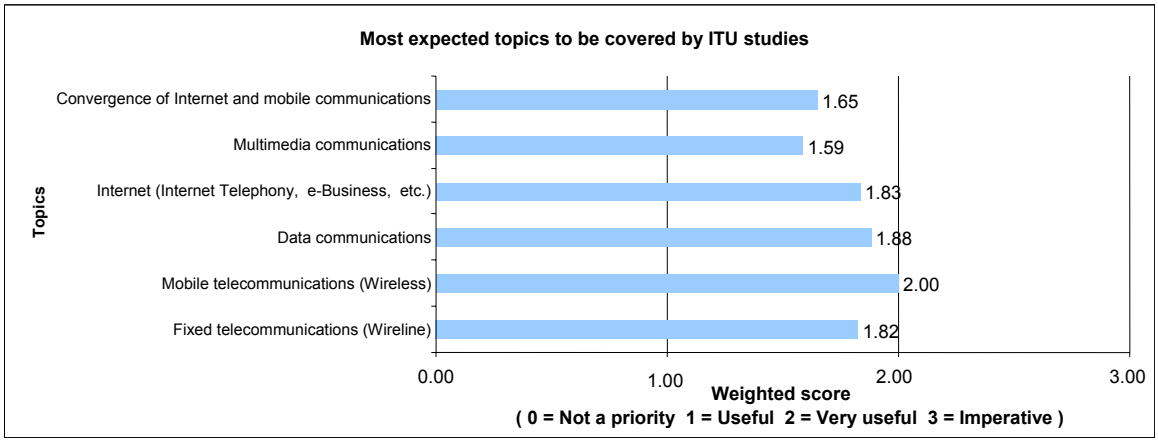


Figure 23 – Expectations relative to the topics to be covered in ITU publications

Regarding provisioning of people training and skills building, the priority for the Fellows is the organization by ITU of seminars and training events at both regional and country level. More specifically, many countries mentioned they are lacking the required expertise and human resources to develop telecom infrastructure as well as telecentres. They are expecting from ITU special support and training to fill these gaps. The figure below ranks the expectations of the Fellows. The scale used is the same as previously.

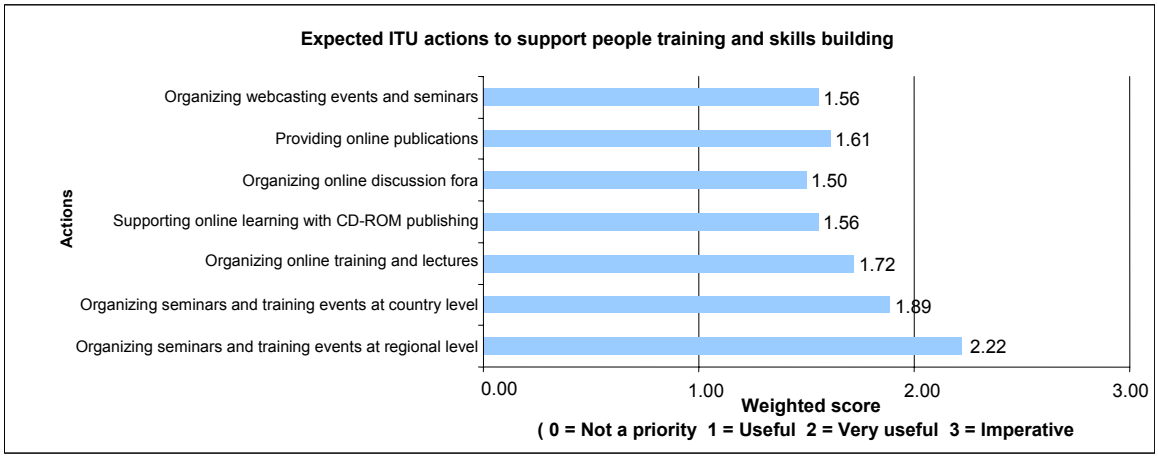


Figure 24 – Expectations relative to training support and skills building by ITU

5.3 Expectations relative to the Developing Countries Forum

5.3.1 Survey objectives

In order to achieve the most efficient results at the next Developing Countries Forum, the Member States surveyed were asked what they were expecting from it. The following potential actions ITU could undertake or re-enforce were proposed:

- To stimulate further interest about telecommunication issues in developing countries
- To create stronger partnerships between ITU, telecommunication companies and Member States
- To develop more opportunities to conclude joint venture agreements
- To ensure the participation of a larger number of countries
- To better allow information sharing and knowledge transfer (publications, studies, recommendations, events, etc.)
- To organize more regional events
- To develop an efficient online platform for the sharing of information and knowledge
- To better ensure practical recommendations are adopted
- To promote the image and visibility of participating associations

5.3.2 Results of the survey

The analysis of the survey answers is summarized below.

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To stimulate further interest about telecom issues in developing countries	17%	56%	22%	6%
	73%		27%	
To create stronger partnerships between ITU, telecom companies and Member States	6%	61%	28%	6%
	67%		33%	
To develop more opportunities to conclude joint venture agreements	18%	41%	12%	29%
	59%		41%	
To ensure the participation of a larger number of countries	17%	50%	33%	0%
	67%		33%	
To better allow information sharing and knowledge transfer	33%	56%	11%	0%
	89%		11%	

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To organize more regional events	22%	39%	33%	6%
	61%		39%	
To develop an efficient online platform for the sharing of information and knowledge	28%	50%	17%	6%
	78%		22%	
To better ensure practical recommendations are adopted	22%	50%	28%	0%
	72%		28%	
To promote the image and visibility of participating associations	6%	28%	67%	0%
	34%		66%	

Figure 25 – Expectations relative to the Developing Countries Forum

Figure 26 compares the various items by weighted score. The scale used is the following: Imperative: 3 points, Very useful: 2 points, Useful: 1 point, Not a priority: 0 point.

Today, many Fellows clearly expect more efficiency in the process of information and knowledge sharing from the Developing Countries Forum. This process is also expected to be ongoing and not limited to the period when the Forum takes place. Moreover, on one hand, the least developed countries declare ITU is the best information source and support regarding telecom issues, but on the other hand the same countries strongly underline the need for efficiency in the communication process.

In order to support the TDS objectives and fulfil the Fellows' expectations, a more efficient communication platform – federating all the stakeholders – could be put in place. Online services could play a key role in the interaction process between ITU and the Member States as well as between the Member States. To be effective, the online services cannot be informational only (publications, marketing of events, …) but must be truly interactive.

New online services could include, for instance: event preparation, surveys and feedback, needs assessment, knowledge access, learning tools, best practice sharing, discussion fora, experts' advice, and so on.

Finally, the Fellows expect ITU to maintain a high number of participating countries by further stimulating interest in telecom issues and to better ensure that passed recommendations are effectively implemented. Here again, an online collaborative platform could fulfil those expectations while ideally complementing physical regional events.

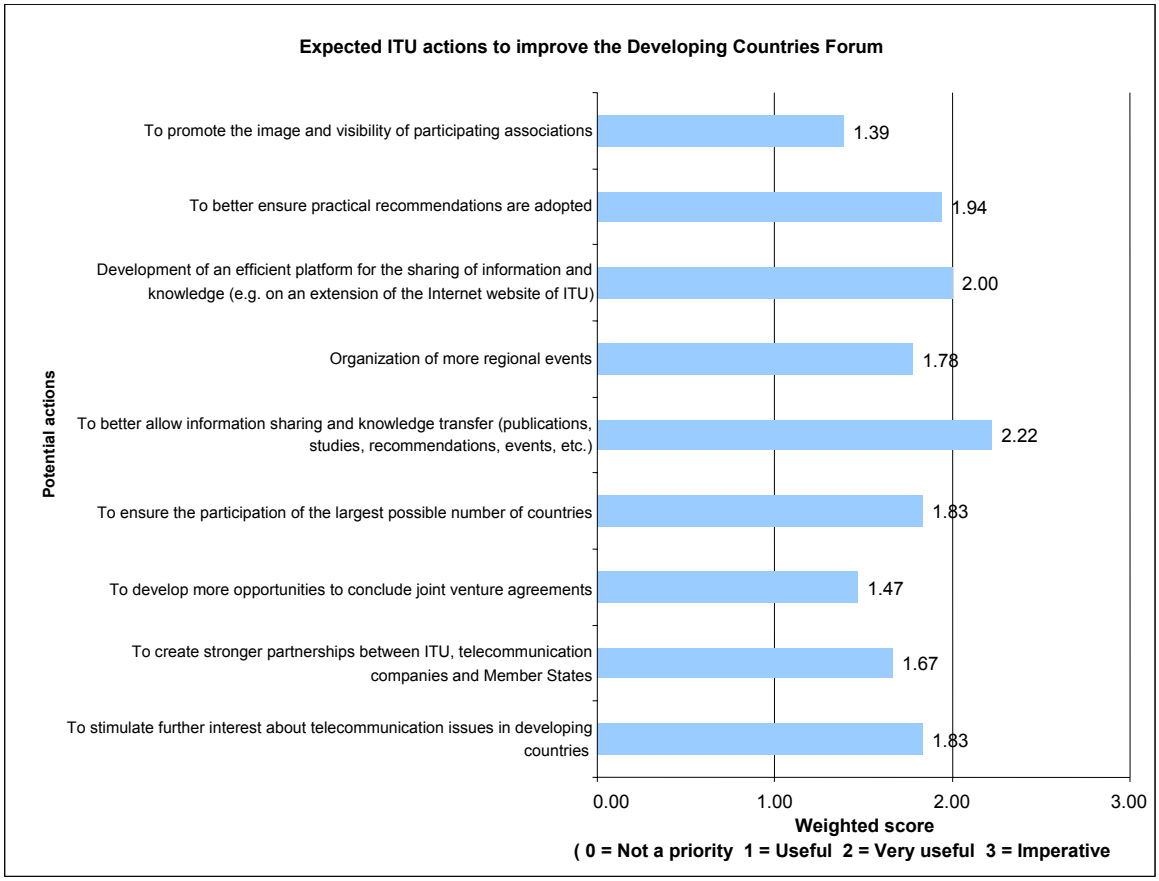


Figure 26 – Expectations relative to the Developing Countries Forum (weighted)

6 Conclusion

The direction of the recommendations were in line with the actual situations and telecommunication activities in the countries of the region. However, it must be noted that the response rate for the survey was 50%, rendering the analysis questionable in two respects: the results are quite sensitive to additional answers and the positions of countries not responding remain unknown. Additional efforts will be made to increase the response rate for the next surveys.

On average, the degree of implementation of the recommendations aiming at developing the Information Society in the region has slightly increased: 94% of the surveyed countries declared promoting the use of the Internet (versus 65% in 2000) and 83% declared collaborating with neighbours to develop synergies (versus 53% in 2000). This increase over time clearly means that the recommendations made must be seen as long-term programmes – taking 5 to 7 years to reach region-wide coverage – thus requiring long-term set-up support and ongoing monitoring.

Regarding the recommendations identified at ITU TELECOM ASIA 2000, more than 50% of surveyed countries declared having defined plans for providing Universal Access to each of the recommended services (except for Internet Broadband) and 60% have implemented one or more telecentres. Nevertheless the implementation of the recommendations varies by country depending on the specific economic, social and geographic situations.

The overall rating of ITU's promotional role in supporting ASIA 2000 recommendations is positive. Indeed, about 70% and 60% of the countries assessed ITU's role as *good* or *very good* for promoting Universal Access and telecentres respectively.

Regarding the ITU general support role, two main contribution elements were particularly appreciated: the usefulness of the information available on the ITU website and the efficiency of TDS as a development catalyst for countries. Both elements were evaluated as *good* or *very good* by 95% and 94% of the surveyed countries respectively.

For the second time since ASIA 2000, a section devoted to the expectations of the Fellows was included in the questionnaire.

Topping the ranking of expectations relative to the development of telecommunications is the need to raise the level of awareness of decision-makers concerning the role of telecommunications. In second and third position come the importance of promoting the development of telecommunication networks and services and the importance of mobilizing resources to provide assistance to developing countries.

Today, many Fellows clearly expect more efficiency in the process of information and knowledge sharing from the Developing Countries Forum. This process is also expected to be ongoing and not limited to the period when the Forum takes place. In order to support the TDS objectives and fulfil the Fellows' expectations, a more efficient communication platform – federating all the stakeholders – should be put in place. In the future, truly interactive services will play a key role in the interaction process between ITU and the Member States as well as between the Member States. Finally, the Fellows expect ITU to maintain a high number of participating countries by further stimulating interest in telecom issues and to better ensure that passed recommendations are effectively implemented.

At ITU TELECOM ASIA 2002, participants will have a unique opportunity to actively share experiences and discuss their expectations.

Welcome to ITU TELECOM ASIA 2002.

Acknowledgements

This report was prepared by Cap Gemini Ernst & Young, under the supervision of ITU TELECOM Forum Division.

The views expressed in the report are those of the authors and do not necessarily reflect the opinions of ITU or its membership.

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Our thanks also go to Messrs Serge Messin and Xavier Logean of Cap Gemini Ernst & Young who conducted the analysis and wrote the report, and to Mr Mario Maniewicz of ITU/BDT for his comments.

Table of contents

1 Introduction

Asia has one of the fastest growing and most innovative communications market in the world and has become the focus of attention for both developed and developing countries. Technological innovation, new services and rising business and consumer expectations in the region represent key challenges to the future evolution of policy and regulatory frameworks.

ITU TELECOM brings together the most influential representatives of governments and the telecommunications industry for the sharing of ideas, knowledge and technology for the benefit of the global community, and in particular the developing world.

The ITU TELECOM Forum is the only global event of its scale bringing together high-ranking representatives from industry and government to discuss and shape the future of the telecom industry. CEOs, government ministers, policy-makers, regulators, financiers and technical specialists will use the Forum at ITU TELECOM ASIA 2002 to define what is possible and what must be done in real terms to accelerate the development of the telecom industry in the Asia-Pacific region.

For ITU TELECOM ASIA 2002, as for ITU TELECOM 99, ITU TELECOM AMERCICAS 2000, ITU TELECOM ASIA 2000 and ITU TELECOM AFRICA 2001, a survey based on the Telecommunication Development Symposium (TDS) recommendations was sent out to 43 countries. A ratio of about one to two countries responded and communicated their results. The questionnaire was put together and the answers were analysed with the support of the global consulting and technology service firm Cap Gemini Ernst & Young.

The main purpose of this report is to evaluate how the various Member States perceive the evolution of the issues that were addressed during the last Forum, and to gather their expectations. The analysis is made of the following four main sections:

- The assessment of the progress made by ITU's Member States in implementing the various recommendations made during TELECOM 95 and INTERACTIVE TELECOM 97 aiming at developing the Information Society; this year results being compared to the ASIA 2000 survey results. Moreover, the effective impact of these recommendations is highlighted.

- The assessment of the progress made by ITU's Member States in implementing the recommendations made during the joint Working Group on Universal Access and Tele-applications at ASIA 2000; a special focus being put on telecentre development in the region.

- The assessment of the effective role of ITU in promoting the various recommendations and in providing the adequate supporting tools to reach the objectives set.

- The assessment of the current and future expectations of the Fellows with regards to both the development of telecommunications and to the Developing Countries Forum in the near future.

This report is not intended to present policies or strategies, but to present the views of the surveyed Member States while providing valuable input to the participants of future TDS sessions.

2 Developing countries and the Information Society

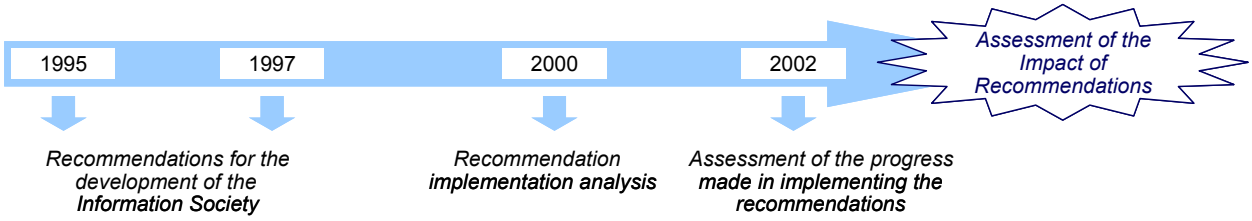
2.1 Background

The first 4-year cycle of the TELECOM Development Symposium Programme (TDS) is now complete. Consequently, before ASIA 2002, the TDS seeks to assess the progress made by ITU's Member States in implementing the various recommendations made by the Working Groups.

Those results will be compared to the result of the ASIA 2000 survey in order to assess the progress made during the past two years and the overall evolution in the region.

Finally, this year's survey aims at assessing the effective impact of the recommendations – understanding which recommendations are successful drivers for the development of the Information Society – when they have been implemented.

The following figure summarizes the various follow-up steps regarding the recommendations about the Information Society development.

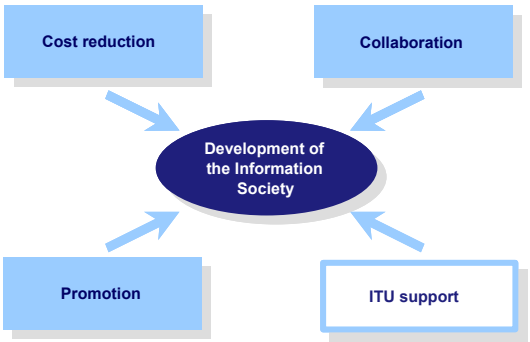


During TELECOM 95 and INTERACTIVE TELECOM 97, it was recognized that the road to the Information Society is not straight but raises many economic, social, cultural and political concerns. The following recommendations were passed:

– Reduce the costs of set-ups, of equipment and of tariffs for end-users;

– Promote the use of the Internet by creating new value rather than only content;

– Collaborate with neighbours in order to take advantage of synergies.



It also appeared clearly that ITU has a key support role to play in answering and solving some of these problems, notably by organizing regular forums. The following sections present the survey results.

2.2 Consolidated results of the 2000 and 2002 surveys

The overall results of the survey are presented in the figure below. The percentage indicates the proportion of countries that have chosen at least a specific combination of initiatives. The 2002 results are compared with the results obtained for the ASIA 2000 survey.

Initiatives	1 initiative			2 initiatives			3 initiatives
Cost-reduction programmes	✓			✓	✓		✓
Promotion		✓		✓		✓	✓
Collaboration with neighbours			✓		✓	✓	✓
% of countries in 2000	82%	65%	53%	65%	47%	42%	42%
% of countries in 2002	83%	94%	83%	83%	72%	83%	72%

Figure 1 – Evolution of the implementation of recommended programmes

On average, the degree of implementation of the recommendations in the region has slightly increased: 94% of the surveyed countries declare promoting the use of the Internet (versus 65% in 2000) and 83% declare collaborating with neighbours to develop synergies (versus 53% in 2000).

Moreover, 72% of the surveyed countries declared having implemented the 3 initiatives compared to only 42% two years ago. It clearly appears that the recommendations made must be seen as long-term programmes – taking 5 to 7 years to reach region-wide coverage – thus requiring long-term set-up support and ongoing monitoring.

Please note that the figures are the regional average as the countries that answered may not be the same for the ASIA 2000 and 2002 surveys. The following sections detail the results for each of the recommendations.

2.3 Recommendations aiming at reducing costs

It was recommended that countries consider lowering costs by using existing infrastructures, website caching, off-line services and applying new satellite technologies. It was also recommended that taxes and duty on equipment imports be cut, and usage tariffs be reduced in order to boost demand.

The latter advocated that Internet tariff structures should be cost-based, in order to avoid both extremes – high tariffs that would restrain network usage and low tariffs that would not yield sufficient revenue to allow new investment in infrastructure.

Evaluation of this recommendation is based on: (i) efficient use of existing technology; (ii) reduction of taxes and duties on equipment imports; and (iii) tariff reductions.

The ITU TELECOM ASIA 2000 survey showed that a very large portion of the countries (82%) had put in place at least one of these recommendations. The cost-reduction methods that have been implemented so far are shown in the following figure and compared to the ASIA 2000 results.

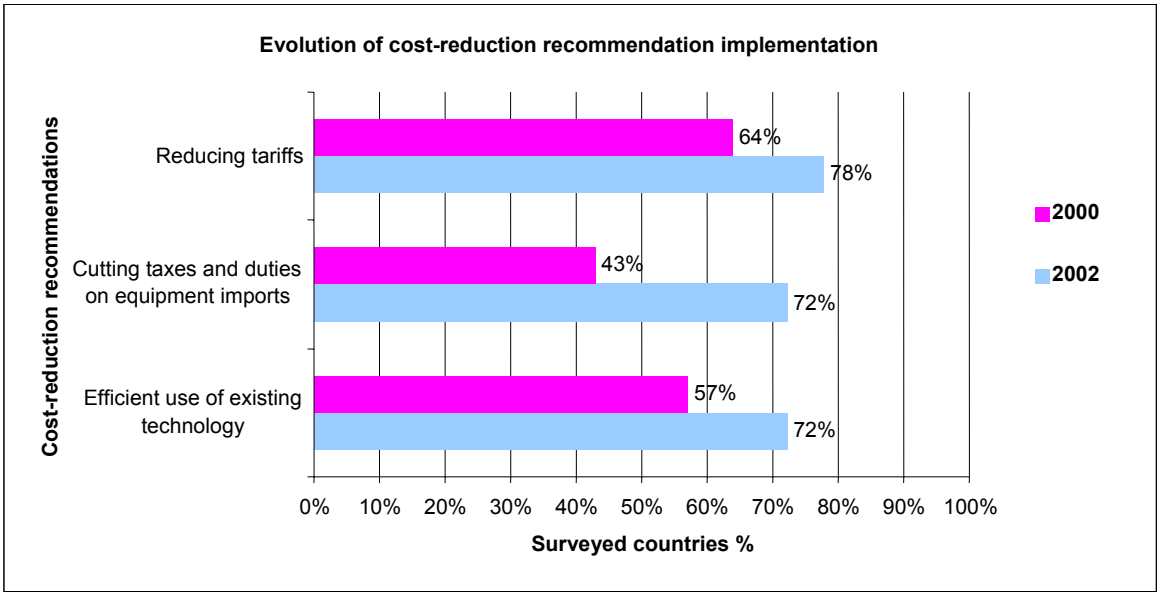


Figure 2 – Evolution of the implementation of recommended cost reduction methods

According to the given answers, it appears that in 2002 each of the cost-reduction recommendations has been implemented by more than 70% of the surveyed countries – a limited increase compared to ASIA 2000 results.

2.4 Recommendations aiming at generating new value for promotion of the Internet

One recommendation suggested that the Internet is not an end in itself and that the objective is not to create content but to create value.

The following key criteria were used for the evaluation:

– Creation of a competitive market for Internet service provision

– Creation of a competitive market for the provision of leased-line services

– Encouragement of favourable tariff strategies in the public telephone network

– Promotion of applications (e.g. virtual e-mail addresses for all students)

– Use of government/academic procurement to prime the Internet backbone network

– Collaboration with neighbours to establish regional Internet hubs

– Encouraging the creation of local content.

The ITU TELECOM ASIA 2000 survey showed that two to three countries had implemented at least one of these recommendations. At this time, countries commented on the main barriers to their Internet development process. Three main barrier categories were identified:

– Financial barriers: these include most notably high cost of leased lines and high cost of computers and equipment relative to household income.

– Technological barriers: the main obstacles mentioned were lack of adequate human resources, inadequate infrastructure for customer demand and international technology standards, language barriers and low connection speeds.

– Market structure barriers: these included mainly low usage and penetration of computers in the domestic arena, small customer base and high communication costs for people in remote areas.

In 2002, 94% of the surveyed countries declare having implemented at least one of these (versus 65% in 2000). The following figure compares ASIA 2000 survey and ASIA 2002 survey results.

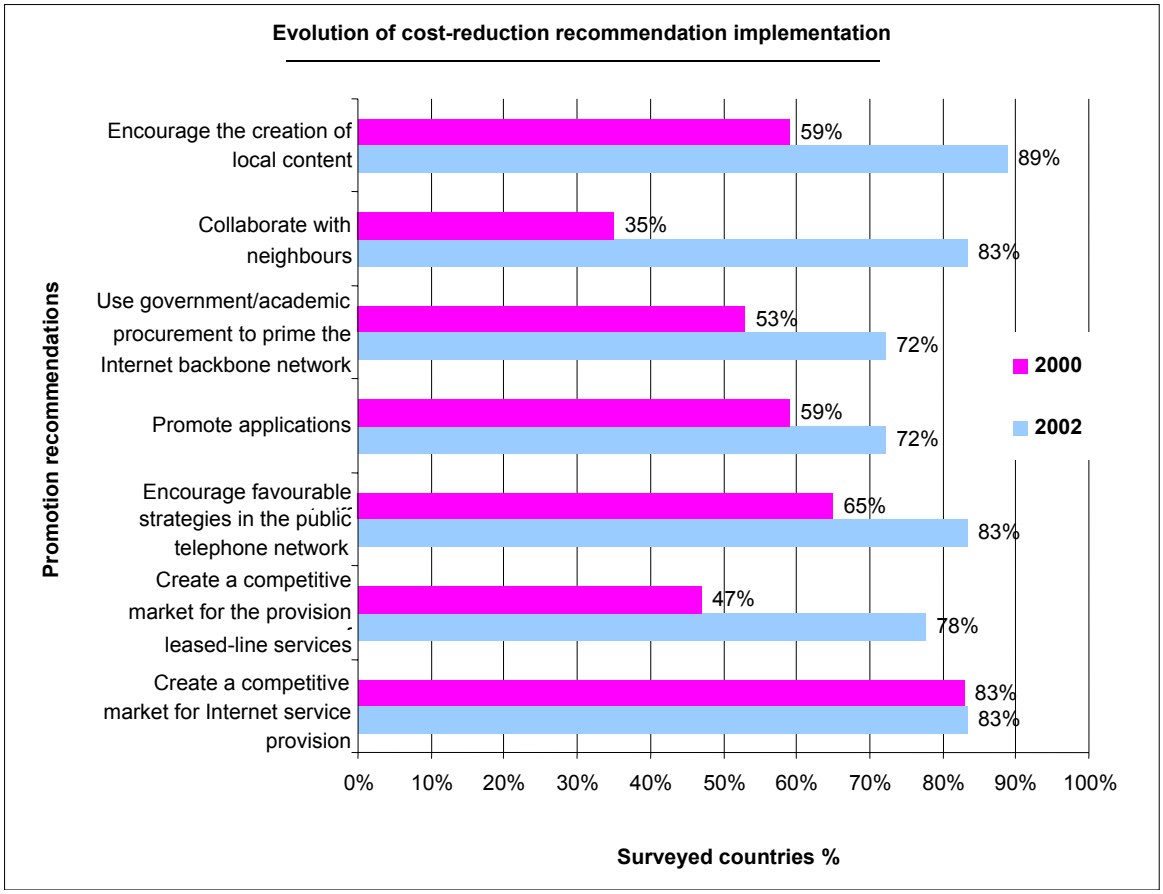


Figure 3 – Evolution of the implementation of recommended promotion methods

The above results and evolution are very encouraging, as on average the degree of implementation has increased for all proposed actions and has reached a high level of adoption in the region.

2.5 Recommendations aimed at increasing collaboration with neighbours

It was recommended that collaboration between neighbouring countries within subregions and regions should be expanded. The use of regional Internet societies, associations and conferences should be promoted. The recommendation also suggested that small countries may achieve economies of scale by uniting efforts with neighbouring countries in order to constitute a more attractive market to equipment vendors. Also, within a given country, a similar economy of scale could be achieved by negotiating multi-annual contracts with potential suppliers.

The following figure compares the results of ASIA 2000 and ASIA 2002 surveys regarding the implementation of collaboration recommendations.

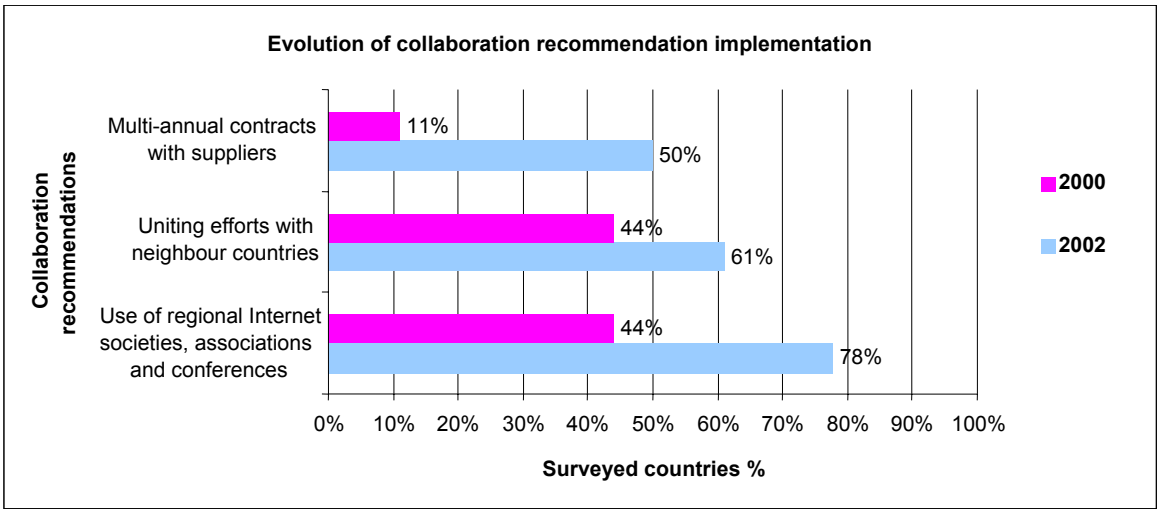


Figure 4 – Evolution of the implementation of recommended collaboration methods

In 2000, lack of coordination and communication between countries, differences in market needs and states of economic development seemed to be the main barriers to international collaboration, although only a few countries expressed any difficulties at all. In particular, when it came to uniting efforts with neighbours in order to benefit from economies of scale by providing a more attractive market for vendors, the differences in the needs of each country were regarded as an important obstacle.

According to 2002 answers, those barriers remain for many countries; nevertheless some of them seem to have been overcome today. Regional Internet societies and associations especially seem to be leveraged more efficiently as a vector for collaboration.

2.6 Assessment of the impact of the implementation of recommendations

The objective of this section is to understand the effective impact (or success so far) of the recommendations on the development of the Information Society in the surveyed countries.

The countries were asked how they evaluate the impact of the various recommendations: very positively, positively, no impact or negatively.

Firstly, regarding cost reduction, the most successful action so far seems to be the reduction of usage tariffs. Some 78% of countries declared having worked in this direction and 100% of these declared the impact is positive or very positive. In most countries, lowering monthly the average price of Internet subscriptions is seen as the key factor to boost demand for Internet access.

Secondly, regarding the promotion of the Internet, 83% of the surveyed countries are actively supporting the creation of a competitive market for Internet Service Provision. Some 56% mentioned a very positive impact on Internet use.

Finally, in terms of collaboration with neighbours, the use of regional Internet societies, associations and conferences has taken off, rising from 44% in 2000 to 78% of surveyed countries in 2002. About 80% of countries declared those cooperation catalysts have a positive or very positive impact on the coordination and communication between countries.

The figure below compares the success of the various recommendations by weighted score. The scale used is the following: Very positive: 2 points, Positive: 1 point, No impact: 0 points, Negative impact: –2 points.

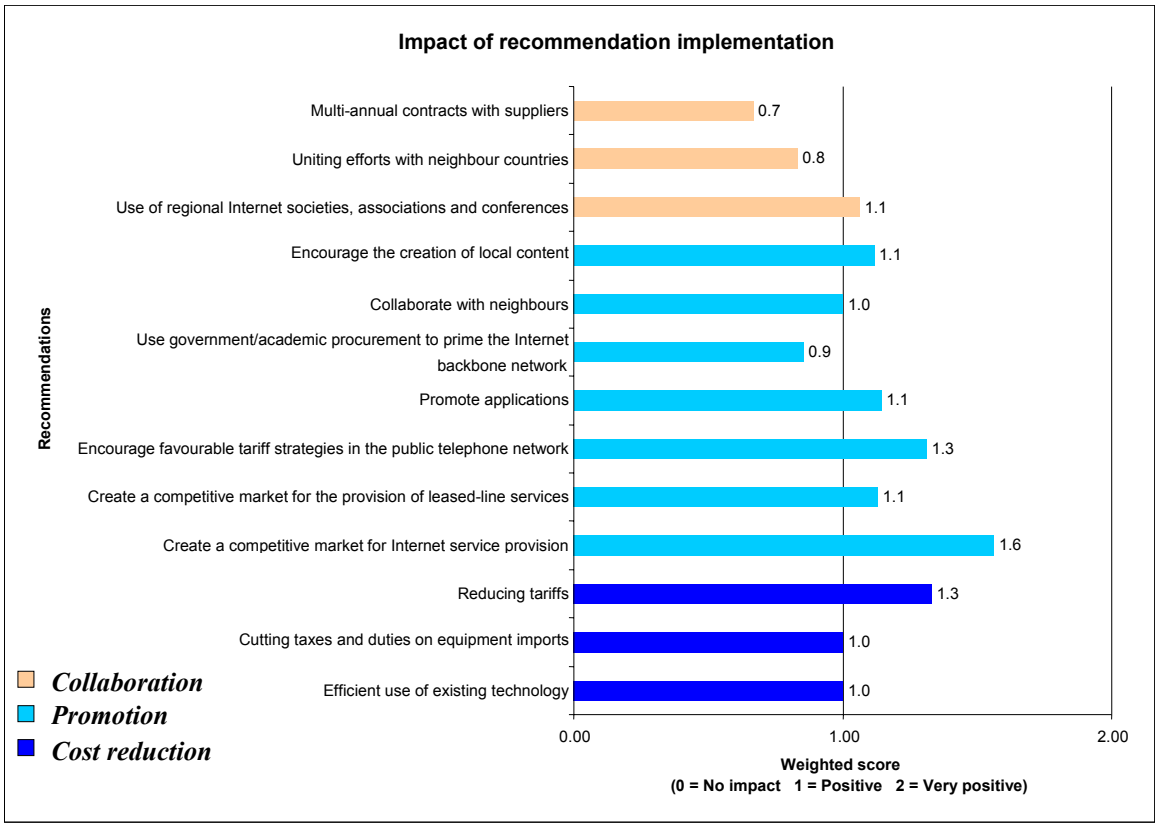


Figure 5 – Impact of the implementation of recommendations

2.7 Findings summary

The figure below summarizes the findings of both ASIA 2000 and ASIA 2002 surveys in terms of evolution of the implementation coverage and in terms of success in effectively supporting the development of the Information Society in the region. Mapping used for implementation degree was: Low = 0% – 50%, Medium = 51% – 75%, High = 76% – 100%. Mapping used for success: Low = 0 – 0.66, Medium = 0.67 – 1.32, High = 1.33 – 2.

	Implementation degree		Success
	2000	2002	2002
Efficient use of existing technology	*Medium 57%*	*Medium 72%*	*Medium 1.0*
Cutting taxes and duties on equipment imports	*Low 43%*	*Medium 72%*	*Medium 1.0*
Reducing tariffs	*Medium 64%*	*High 78%*	*High 1.3*
Create a competitive market for Internet service provision	*High 83%*	*High 83%*	*High 1.6*
Create a competitive market for the provision of leased-line services	*Low 47%*	*High 78%*	*Medium 1.1*
Encourage favourable tariff strategies in the public telephone network	*Medium 65%*	*High 83%*	*High 1.3*
Promote applications	*Medium 59%*	*Medium 72%*	*Medium 1.1*
Use government/academic procurement to prime the Internet backbone network	*Medium 53%*	*Medium 72%*	*Medium 0.9*
Collaborate with neighbours	*Low 35%*	*High 83%*	*Medium 1.0*
Encourage the creation of local content	*Medium 59%*	*High 89%*	*Medium 1.1*
Use of regional Internet societies, associations and conferences	*Low 44%*	*High 78%*	*Medium 1.1*
Uniting efforts with neighbour countries	*Low 44%*	*Medium 61%*	*Medium 0.8*
Multi-annual contracts with suppliers	*Low 11%*	*Low 50%*	*Low 0.7*

Figure 6 – Implementation evolution and success of recommendations aiming at developing the Information Society

3 Universal Access and Tele-applications

3.1 Background

During the joint Working Group on Universal Access and Tele-applications at ASIA 2000, it became clear to the delegates of the countries represented in this working group that the definition of Universal Access is no longer perceived as simply access to a telephone, but access to the Information Society with the services it offers. Thus it becomes natural to include discussion on tele-education, tele-health, telecentres, etc., when speaking of Universal Access.

The main conclusion was that efforts should be concentrated on providing Universal Access in its widest sense. Consequently, the very interesting experiences shared by the participants of the working group led to the formulation of recommendations applicable to policy and regulatory aspects, financing aspects, specific content creation as well as the essential role of the community.

3.2 Recommendations focusing on Universal Access

3.2.1 Survey objectives

Regarding Universal Access, the objective of the survey was threefold:

– Define Universal Access in terms of services in scope beyond fixed-line telephony – the strategic willingness.

– Assess the expected timeframe for implementation of Universal Access for those services – the operational feasibility.

– Understand how Universal Access is promoted and financially subsidized – the development support.

3.2.2 Definition of Universal Access

Question: It has been recommended to consider universal access in a broad sense and not only to simple access to a telephone. In your country, what access types are understood as being part of universal access?

Today, 83% of surveyed countries include Fixed-Line Telephony in their definition of Universal Access. The answers show that the remaining 17% (not shown in Figure 7) prefer to rely either on village phone or on wireless telephony to ensure countrywide access to basic voice services while limiting infrastructure costs. Beyond basic voice services, the most popular services for Universal Access are telecentres (56%) and narrowband Internet (44%).

The figure below ranks the various services by frequency of inclusion in the definition of Universal Access.

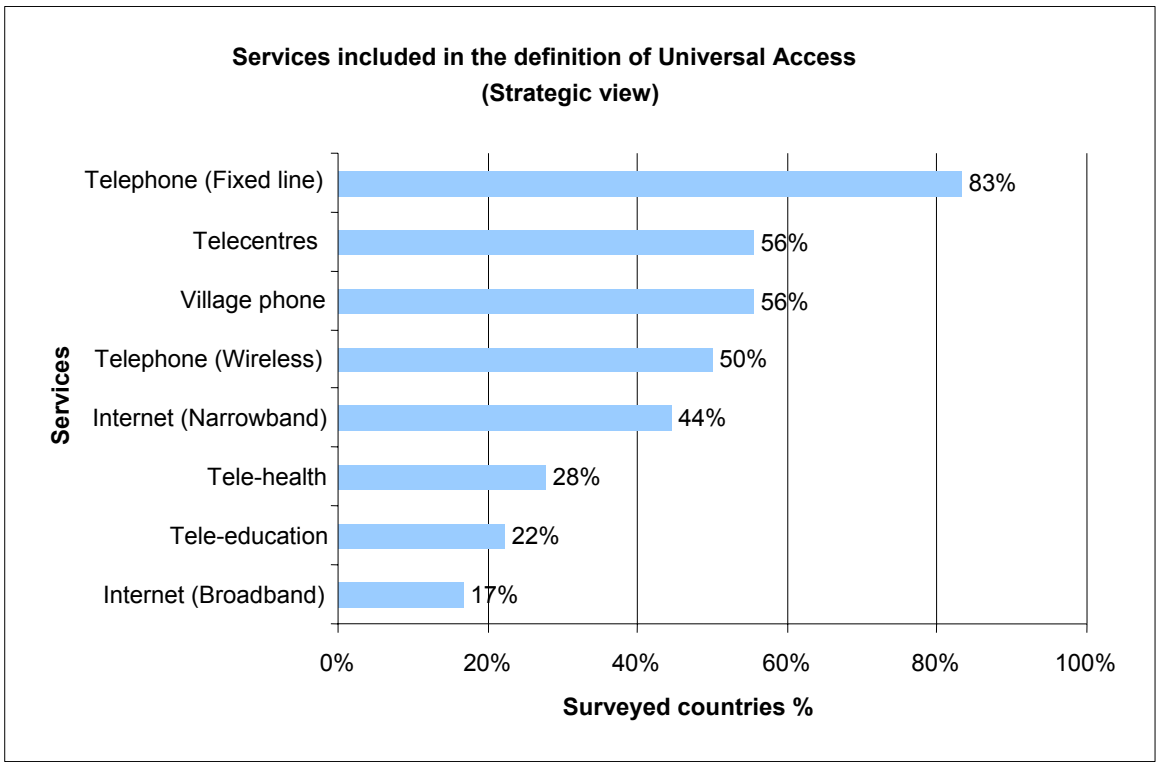


Figure 7 – Definition of Universal Access

The next section compares the strategic willingness towards Universal Access with the operational feasibility of the implementation for the various services.

3.2.3 Implementation of Universal Access

Question: Considering universal access, which activities/services are being implemented now or are planned to be implemented in your country? Possible answers: Done, Mid-term: 1-24 months, Long-term: more than 2 years, Not planned.

The figure below illustrates the operational feasibility for each service based on:

– the distribution of surveyed countries according to various implementation timeframes

– a comparison with the frequency of inclusion of the service in the definition of Universal Access as of today (horizontal line).

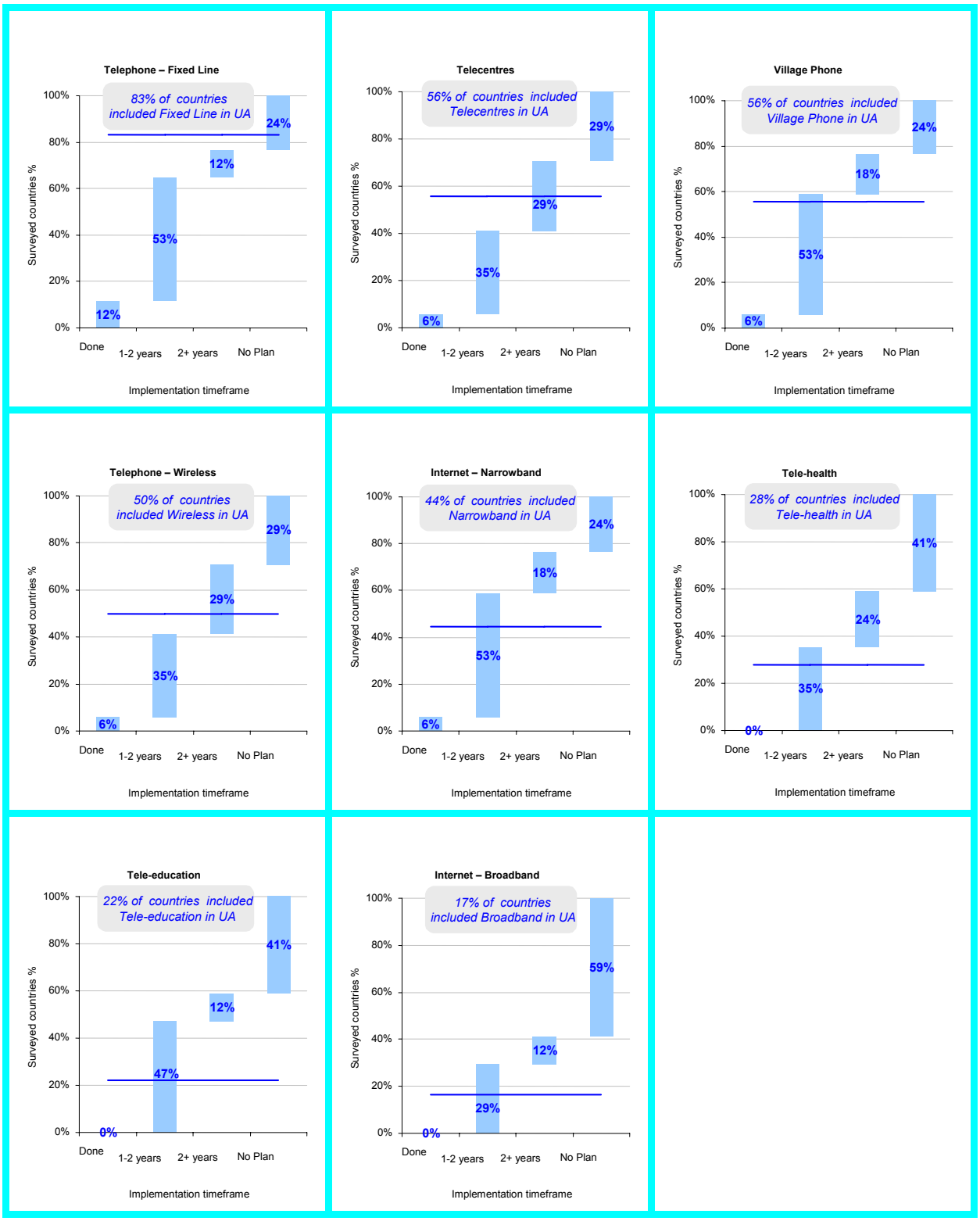


Figure 8 – Implementation path of services

As of today and for all services considered here, the results show that there is a gap between the strategic willingness to provide Universal Access and the current service implementation. For instance, considering Fixed-Line Telephony, only 12% of countries declare providing Universal Access to the service, but 83% consider Fixed-Line Telephony as mandatory for Universal Access.

Nevertheless, as illustrated in the figure below, for each service except for Internet Broadband, more than 50% of surveyed countries declared they have defined mid-term (1 to 2 years) or long-term (more than 2 years) implementation plans.

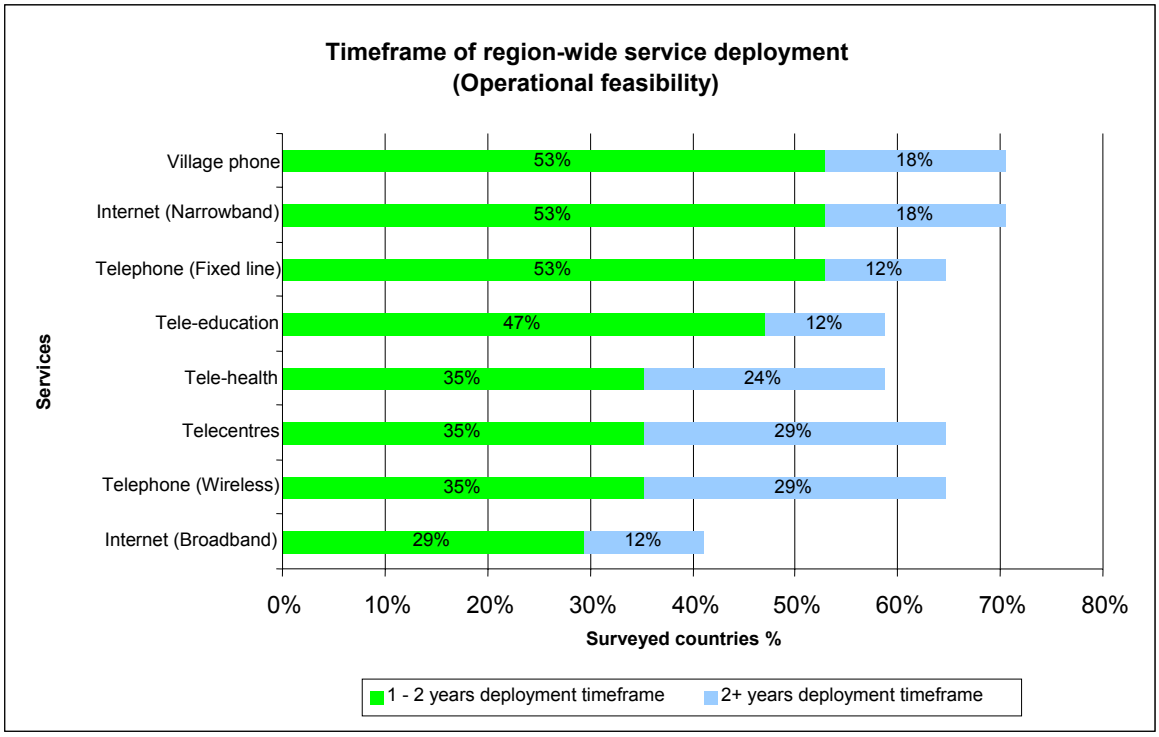


Figure 9 – Comparison of the implementation path of various services

The following matrix positions each service according to two dimensions:

– Mid-term deployment effort of the service in the region based on the percentage of surveyed countries declaring implementation plans within the next two years.

– Long-term deployment effort of the service in the region based on the percentage of surveyed countries declaring implementation plans in more than two years.

Deployment in 2+ years			
	Selective	○ *Telephone (Fixed line)* ○ *Village phone* ○ *Internet (Narrowband)*	○ *Tele-health* ○ *Tele-education* ○ *Internet (Broadband)*
	Predominant	○ *None*	○ *Telephone (Wireless)* ○ *Telecentres*
		Predominant	Selective
		Deployment for the next 2 years	

Figure 10 – Mid-term and long-term regional priorities

At region level and in the short term, fixed-line telephony, village phone and narrowband Internet are the priorities for most of the surveyed countries. A huge effort seems to be planned for the next two years to fill the Universal Access gap as soon as possible for both basic voice services and World Wide Web content access.

Wireless telephony and telecentre services deployment are planned by 35% of the surveyed countries for the next two years and should become predominant from 2005 compared to other services.

Almost 60% of the surveyed countries have planned deployment of tele-health and tele-education services at some point in time. Tele-health services are expected to be implemented gradually in the region over time while a stronger short-term focus seems to be put on tele-education services.

Finally, broadband access services have the lowest priority in both the mid and long term. Some 59% of the surveyed countries declared not having any plan so far for such a deployment.

Today, the operational feasibility of the implementation of Universal Access is still uncertain for many services in many countries.

As summarized in the following figure, we note that many countries do not include services in their definition of Universal Access but nevertheless have planned deployment initiatives for these. Except for fixed-line telephony, the percentage of surveyed countries which do NOT include the service in their definition of Universal Access is higher than the percentage of surveyed countries which have NO service implementation plan so far. For example, 56% of the surveyed countries do not include narrowband Internet in Universal Access but only 24% declare having no plan at all to deploy narrowband Internet in a near future.

Service	% of surveyed countries NOT including service in their definition of Universal Access	% of surveyed countries having NO service implementation plan so far
Telephone (Fixed line)	17%	24%
Telephone (Wireless)	50%	29%
Internet (Narrowband)	56%	24%
Internet (Broadband)	83%	59%
Village phone	44%	24%
Telecentres	44%	29%
Tele-education	78%	41%
Tele-health	72%	41%

Figure 11 – Operational feasibility of Universal Access

Therefore, we can conclude that the issue of provisioning access to services seems to be seriously tackled but not on a countrywide and universal basis at the moment.

The next section gives some insight about how Universal Access is effectively supported in the surveyed countries.

3.2.4 Promotion of Universal Access

Question: It has been recommended to encourage the development of access point, telecentres, Internet, etc. In your country, how is universal access promoted?

The figure below ranks the most-often-used Universal Access promotion methods in the region.

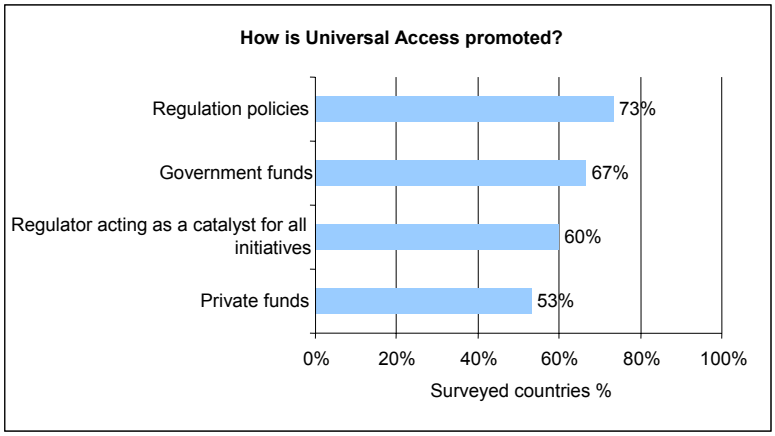


Figure 12 – Promotion of Universal Access

Within the 73% of countries which mention regulation policies as a Universal Access promotion method, 100% declared that regulation initiatives are supportive in defining goals and outcomes and 75% in making operational decisions.

Question: All universal services should aim for sustainability, though it was recognized that subsidization might be required. In your country, is Universal Access sustainable? If Not, how is the financial subsidization organized?

To the general question "*Is Universal Access sustainable?*", 59% of the surveyed countries answered "no". To a large extent, subsidization is and remains mandatory for financing the whole service delivery value chain, from infrastructure to maintenance.

The percentages on the figure below summarize the organization of subsidies allocation across the value chain in the region.

Subsidies areas	Initial infra-structure set-up	Specific staff training	Content generation/ acquisition	Operations	Maintenance
% of Surveyed countries	73%	45%	27%	36%	36%

Figure 13 – Subsidization of Universal Access

Support to infrastructure financing remains the main focus of subsidies in most countries (73%). Nevertheless, it must be noted that more than one country out of four declared that content is an area to which funds are allocated. An important move as, besides pure Internet access provisioning, local content creation and diffusion is a key driver to make the World Wide Web a useful and efficient development medium.

3.3 Recommendations focusing on telecentres

3.3.1 Survey objectives

During ASIA 2000, telecentres have been perceived as an important element to ensure the development of telecommunications in the countries as well as to bridge the digital divide.

As presented in the previous section, the results of the survey confirm this importance:

– 56% of surveyed countries include telecentres in the definition of Universal Access.

– 65% of surveyed countries declare having Universal Access plans for telecentres.

More specifically, the objective of the survey regarding telecentres was twofold:

– Assess the importance of telecentres implementations in the region and point out the related barriers.

– Understand the main drivers of telecentre initiatives.

3.3.2 Implementation of telecentres

Question: How many telecentres have already been developed in your country?

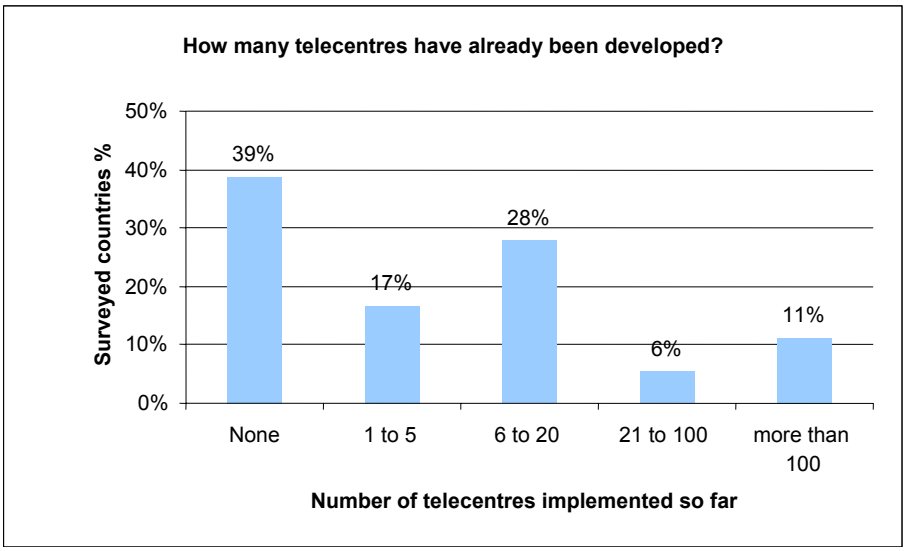


Figure 14 – Deployment of telecentres

The study shows that 61% of the surveyed countries have developed one or more telecentres so far. This result can be compared to those of the previous section: 44% of the surveyed countries do not include telecentres in the definition of Universal Access and 29% declared having no plan at all to implement any.

Moreover, when asking, *"How many are planned?"*, the analysis shows that:

– 44% of countries answer “none”.

– Within the countries which have not implemented any telecentres so far, only one has planned to develop some in the near future.

As a conclusion and according to the given answers, we can clearly identify two main groups of countries in the region:

– The countries which have moved towards telecentre implementation and will continue this way (about 2 countries to 3).

– The countries which did not develop telecentres and do not plan to do so (about 1 country to 3). In that case, the following question was asked:

Question: If you have not yet developed telecentres or if you experience problems in the development of telecentres in your country, what are the main barriers?

The figure below summarizes the importance of the main potential barriers to telecentre development in those countries that had not started implementing so far.

Barrier	Cost of infrastructure	Geographical constraints	Regulatory issues
Surveyed countries %	91%	64%	27%

Figure 15 – Barriers to telecentre deployment

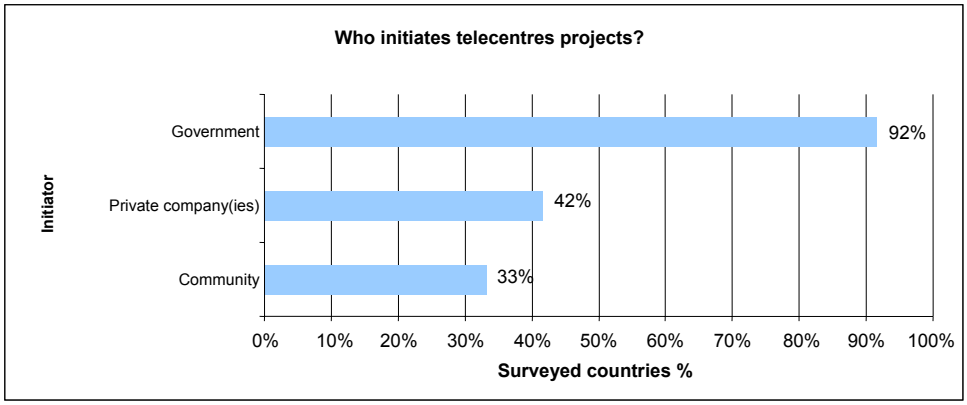
3.3.3 Drivers of telecentre initiatives

The following questions were put to the countries which have implemented telecentres in order to better circumscribe telecentre initiatives.

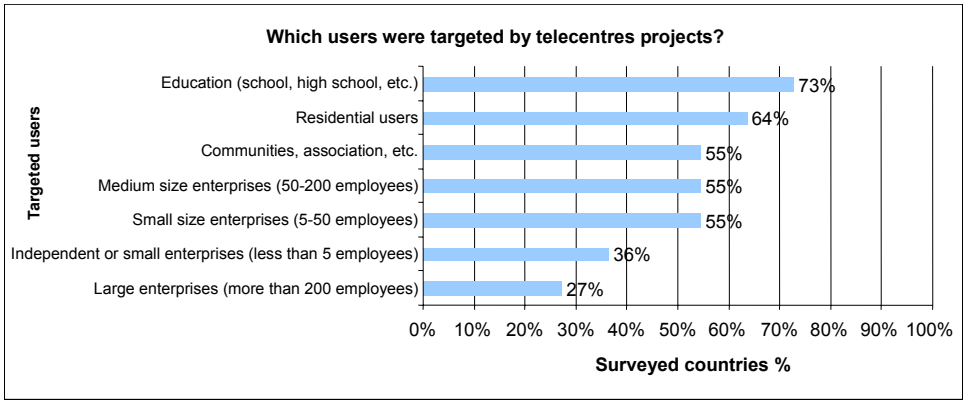
Questions:	Who was the initiator of the telecentre projects? For which users were they developed or planned? Who are the actual users? Who are the actual staff members working at the telecentres? What kinds of sites are used?

The figure below summarize the findings of the survey and gives a snapshot of the main drivers of telecentre projects in the region.

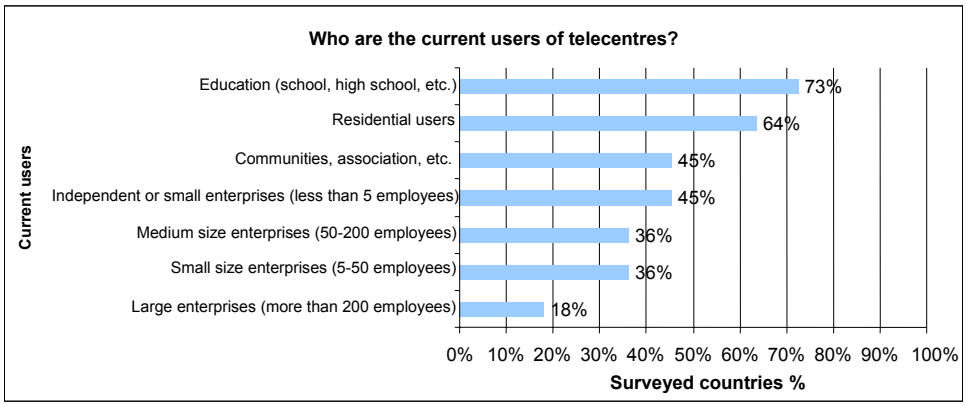
Who was the initiator of the telecentre projects?



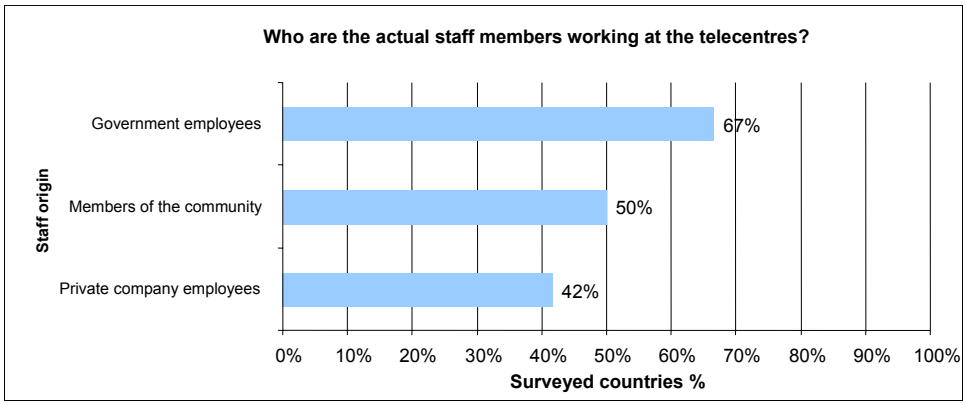
For which users were they developed or planned?



Who are the actual users?



Who are the actual staff members working at the telecentres?



What kinds of site are used?

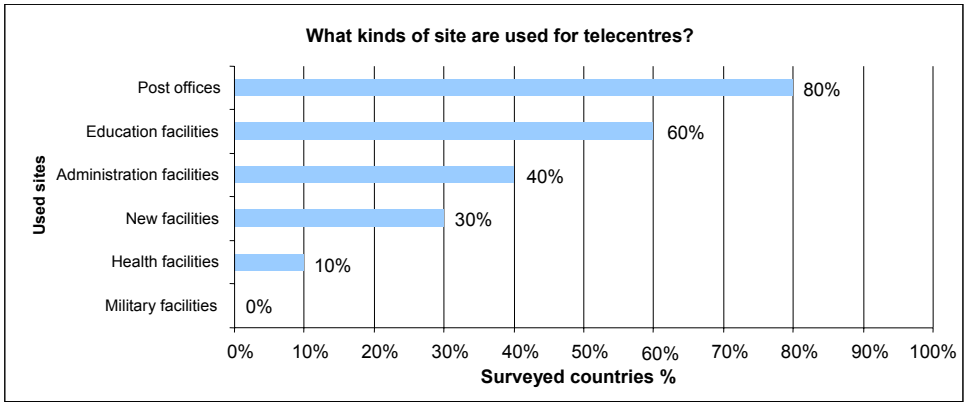


Figure 16 – Drivers of telecentres deployment

Finally, considering again telecentres, it has been recommended to not only focus on the infrastructure but also on the content.

***Question*:** Did you design integrated projects allowing the creation and dissemination of appropriate content to various communities?

Globally, 50% of surveyed countries declared having designed integrated projects allowing the creation and dissemination of appropriate content to various communities. More specifically, about 20% designed integrated projects for agriculture, about 20% for health and about 45% integrated projects for education.

4 Assessment of the contribution of ITU

4.1 Promotion of ASIA 2000 recommendations

4.1.1 Survey objectives

In order to obtain feedback after ITU TELECOM ASIA 2000 on the support role played by ITU, and in particular on the promotion of the recommendations made, the following questions were included in the questionnaire:

– How do you perceive the promotion by ITU on the subject of universal access?

– How do you perceive the work done by ITU to encourage governments to consider the implementation of telecentres?

– How do you perceive the work of ITU on taking the lead to integrate the various sectors implied in the planning and implementation of telecentres?

4.1.2 Results of the survey

The analysis of the survey answers is summarized below.

ITU promotional role	Very good	Good	Weak	Very weak
Accuracy of the promotion of Universal Access	11%	61%	17%	11%
	72%		28%	
Accuracy of the promotion of tele-education	13%	50%	25%	13%
	63%		37%	
Accuracy of the promotion of tele-medicine	7%	53%	27%	13%
	60%		40%	
Accuracy of the promotion of telecentres	13%	50%	19%	19%
	63%		38%	
Efficiency in encouraging governments to implement telecentres	18%	41%	29%	12%
	59%		41%	
Efficiency in federating the sectors implied in the deployment of telecentres	6%	53%	24%	18%
	59%		41%	

Figure 17 – ITU contribution in promoting ASIA 2000 recommendations

The overall rating of ITU's promotional role in supporting ASIA 2000 recommendations is positive. Indeed, about 70% and 60% of the countries assessed ITU's role as *good* or *very good* for promoting Universal Access and telecentres respectively. Please note that the weighted score in Figure 18 has been adjusted by computing the percentage on the countries that actually answered.

Given the importance which is given to telecentres by the surveyed countries – about 65% have plans to develop some – special attention should be paid by ITU on the promotion of this topic.

The figure below compares the various items by weighted score. The scale used is the following: Very good: 3 points, Good: 2 points, Weak: 1 point, Very weak: 0 points.

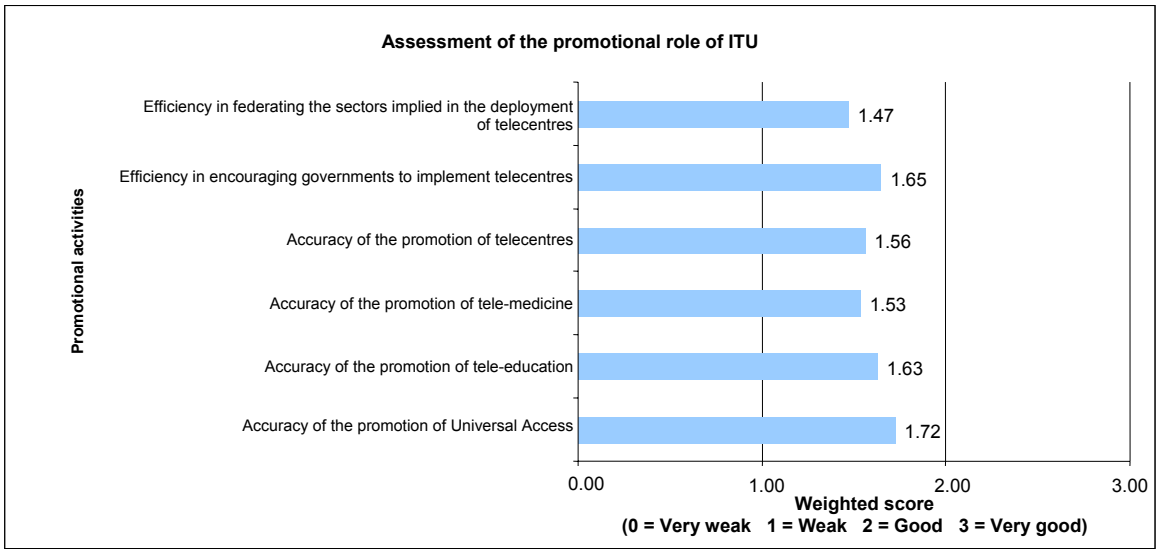


Figure 18 – ITU contribution in promoting ASIA 2000 recommendations (weighted)

4.2 Overall support to countries

4.2.1 Survey objectives

In order to assess the overall support role played by ITU, and in particular on its communication process with participating countries and the appropriateness of its publications with regards to their needs, the following questions were included in the questionnaire:

– It has been recommended that the members of the working party should have had a better knowledge of the participating countries of the Forum in order to adapt their work and presentations accordingly. How has this knowledge been improved for your country?

– Regarding technical cooperation requirements, how efficient is your country communication process with ITU?

– How accurate is your information about ITU publications?

– How do you perceive the information available on the website of ITU (**www.itu.int**)?

– How do you perceive the role of ITU as a development catalyst/tool for your country?

– How do you perceive the role of the ITU TELECOM Development Symposium (TDS) as a development catalyst/tool for your country?

4.2.2 Results of the survey

The analysis of the survey answers is summarized below.

ITU overall support	Very good	Good	Weak	Very weak
Improvement of the knowledge of the Forum participants	7%	57%	21%	14%
	65%		35%	
Efficiency of the communication with ITU regarding technical cooperation	17%	67%	17%	0%
	83%		17%	
Accuracy of the information about ITU publications	11%	56%	33%	0%
	67%		33%	
Usefulness of the information available on the ITU website	28%	67%	6%	0%
	95%		5%	
Efficiency of ITU as development catalyst of countries	28%	61%	11%	0%
	87%		11%	
Efficiency of TDS as development catalyst of countries	29%	65%	6%	0%
	94%		6%	

Figure 19 – ITU overall support to countries

The figure below compares the various items by weighted score. The scale used is the following: Very good: 3 points, Good: 2 points, Weak: 1 point, Very weak: 0 points.

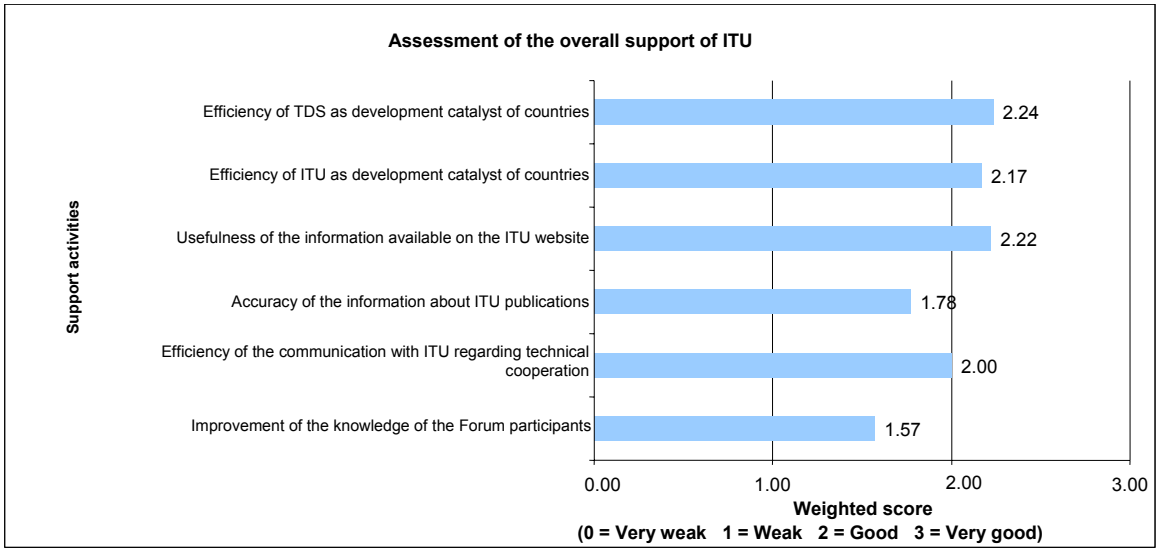


Figure 20 – ITU overall support to countries (weighted)

The results of the assessment are very positive. The two main components which must be highlighted here are (1) the usefulness of the information available on the ITU website and (2) the efficiency of TDS as development catalyst for countries. Both elements were evaluated as *good* or *very good* by 95% and 94% of the surveyed countries respectively.

On the other hand, 35% of the surveyed countries expect that ITU improves the knowledge about the Forum participants; they highlighted the importance of having the largest possible attendance to the Asia event to be able to maximize information and experience sharing.

Some 33% mentioned that the accuracy of the information about ITU publications could be improved; the most often mentioned reason was that the ITU publications were not up-to-date enough.

5 Assessment of the expectations of the Fellows

5.1 Background

In order to increase the efficiency and relevance of ITU's activities, and in particular for the future recommendations to be in line with the expectations of the Fellows, it is important that the needs and expectations of participating countries are well understood.

Hence, this section is dedicated to assessing current and future expectations of the Fellows. In the first part, countries were asked to comment on their expectations from ITU with regards to the development of telecommunications, whereas in the second part, they are asked what they expect from the Developing Countries Forum in the near future.

5.2 Expectations relative to the development of telecommunications

5.2.1 Survey objectives

In order to assess what the Member States are concretely expecting from ITU, they were asked about the usefulness of the following potential actions ITU could undertake or re-enforce:

- To raise the level of awareness of decision-makers concerning the role of telecommunications
- To promote the development of telecommunication networks and services
- To mobilize resources to provide assistance to developing countries
- To accelerate the transfer of technologies
- To provide information and advice on policy and structural options
- To carry out studies on telecommunication issues
- To cooperate with other organizations
- To provide accurate programme supervision and technical advice
- To provide people training and specific skills capacity building for the Fellows

5.2.2 Results of the survey

The analysis of the survey answers is summarized below.

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To raise the level of awareness of decision-makers about telecom role	44%	44%	11%	0%
	89%		11%	
To promote the development of telecom networks and services	28%	56%	17%	0%
	84%		17%	
To mobilize resources to provide assistance to developing countries	39%	33%	22%	6%
	72%		28%	
To accelerate the transfer of technologies	28%	39%	22%	11%
	67%		33%	
To provide information and advice on policy and structural options	22%	50%	22%	6%
	72%		28%	

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To carry out studies on telecommunication issues	11%	61%	22%	6%
	72%		28%	
To cooperate with other organizations	12%	59%	29%	0%
	71%		29%	
To provide accurate programme supervision and technical advice	6%	56%	31%	6%
	62%		38%	
To provide people training and specific skills capacity building for the Fellows	28%	50%	17%	6%
	77%		23%	

Figure 21 – Expectations relative to the development of telecommunications

The figure below compares the various items by weighted score. The scale used is the following: Imperative: 3 points, Very useful: 2 points, Useful: 1 point, Not a priority: 0 points.

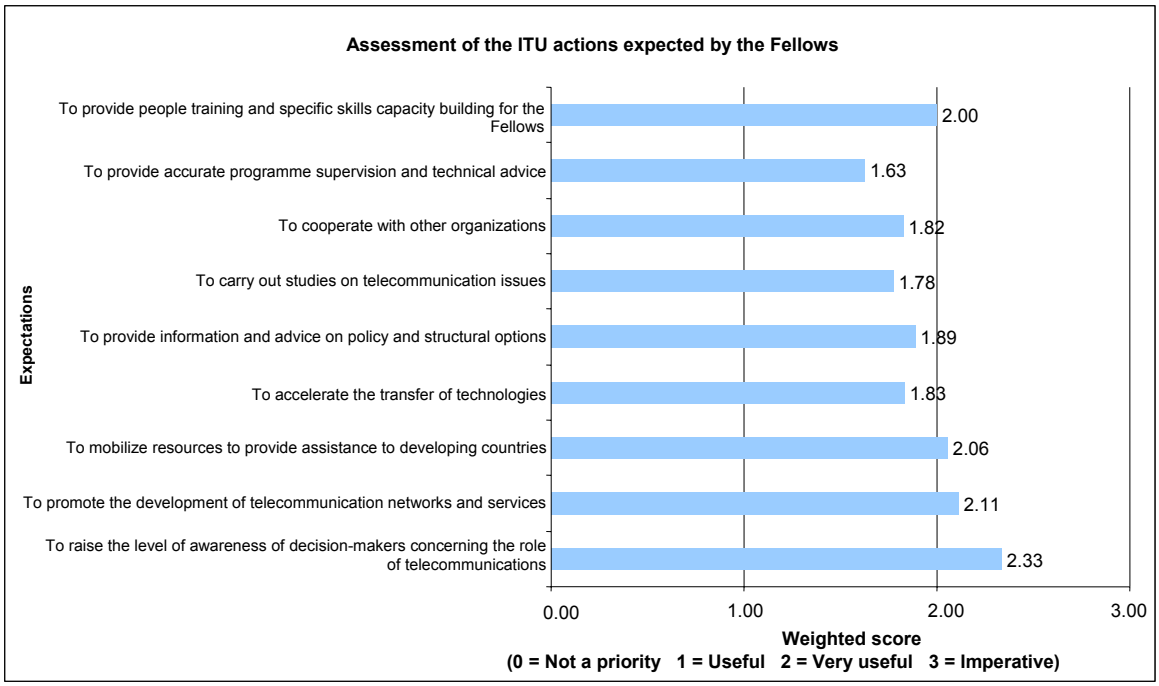


Figure 22 – Expectations relative to the development of telecommunications (weighted)

As a result, the top three actions expected by the Fellows from ITU are (1) to raise the level of awareness of decision-makers concerning the role of telecommunications, (2) to promote the development of telecommunication networks and services and (3) to mobilize resources to provide assistance to developing countries.

Please note that, regarding cooperation, the Fellows expect ITU to build closer links with third-party organizations. They mention among others Asia-Pacific Telecommunity, Asia Development Bank and IETF.

As shown in the figure below, regarding the publication of studies on telecommunication issues, wireless and data communication are the topics ITU is expected to focus on first. The scale used is the same as previously.

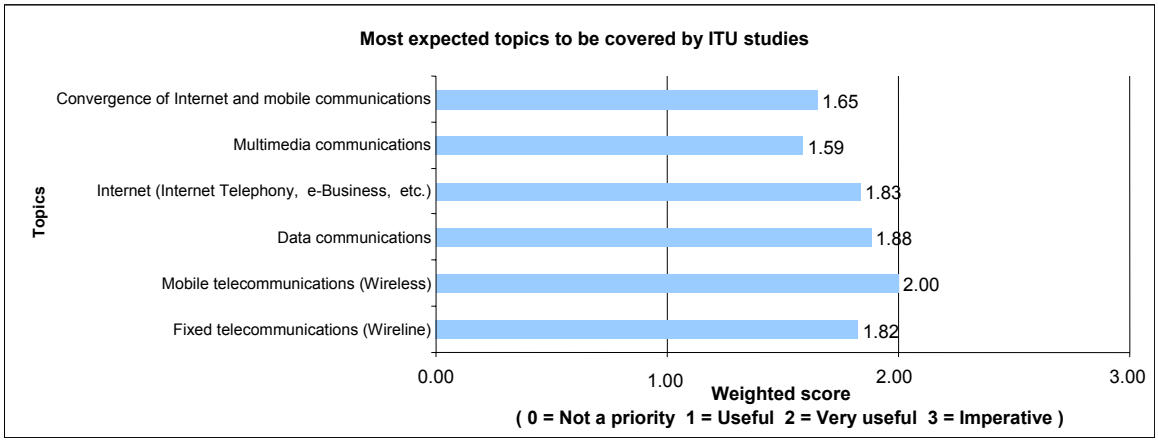


Figure 23 – Expectations relative to the topics to be covered in ITU publications

Regarding provisioning of people training and skills building, the priority for the Fellows is the organization by ITU of seminars and training events at both regional and country level. More specifically, many countries mentioned they are lacking the required expertise and human resources to develop telecom infrastructure as well as telecentres. They are expecting from ITU special support and training to fill these gaps. The figure below ranks the expectations of the Fellows. The scale used is the same as previously.

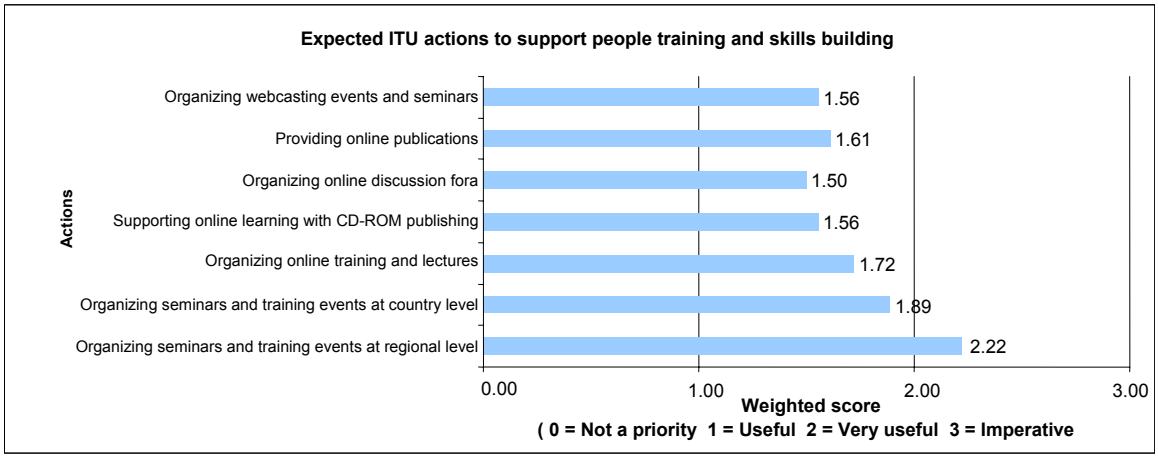


Figure 24 – Expectations relative to training support and skills building by ITU

5.3 Expectations relative to the Developing Countries Forum

5.3.1 Survey objectives

In order to achieve the most efficient results at the next Developing Countries Forum, the Member States surveyed were asked what they were expecting from it. The following potential actions ITU could undertake or re-enforce were proposed:

- To stimulate further interest about telecommunication issues in developing countries
- To create stronger partnerships between ITU, telecommunication companies and Member States
- To develop more opportunities to conclude joint venture agreements
- To ensure the participation of a larger number of countries
- To better allow information sharing and knowledge transfer (publications, studies, recommendations, events, etc.)
- To organize more regional events
- To develop an efficient online platform for the sharing of information and knowledge
- To better ensure practical recommendations are adopted
- To promote the image and visibility of participating associations

5.3.2 Results of the survey

The analysis of the survey answers is summarized below.

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To stimulate further interest about telecom issues in developing countries	17%	56%	22%	6%
	73%		27%	
To create stronger partnerships between ITU, telecom companies and Member States	6%	61%	28%	6%
	67%		33%	
To develop more opportunities to conclude joint venture agreements	18%	41%	12%	29%
	59%		41%	
To ensure the participation of a larger number of countries	17%	50%	33%	0%
	67%		33%	
To better allow information sharing and knowledge transfer	33%	56%	11%	0%
	89%		11%	

Potential actions for ITU	Imperative	Very useful	Useful	Not a priority
To organize more regional events	22%	39%	33%	6%
	61%		39%	
To develop an efficient online platform for the sharing of information and knowledge	28%	50%	17%	6%
	78%		22%	
To better ensure practical recommendations are adopted	22%	50%	28%	0%
	72%		28%	
To promote the image and visibility of participating associations	6%	28%	67%	0%
	34%		66%	

Figure 25 – Expectations relative to the Developing Countries Forum

Figure 26 compares the various items by weighted score. The scale used is the following: Imperative: 3 points, Very useful: 2 points, Useful: 1 point, Not a priority: 0 point.

Today, many Fellows clearly expect more efficiency in the process of information and knowledge sharing from the Developing Countries Forum. This process is also expected to be ongoing and not limited to the period when the Forum takes place. Moreover, on one hand, the least developed countries declare ITU is the best information source and support regarding telecom issues, but on the other hand the same countries strongly underline the need for efficiency in the communication process.

In order to support the TDS objectives and fulfil the Fellows' expectations, a more efficient communication platform – federating all the stakeholders – could be put in place. Online services could play a key role in the interaction process between ITU and the Member States as well as between the Member States. To be effective, the online services cannot be informational only (publications, marketing of events, …) but must be truly interactive.

New online services could include, for instance: event preparation, surveys and feedback, needs assessment, knowledge access, learning tools, best practice sharing, discussion fora, experts' advice, and so on.

Finally, the Fellows expect ITU to maintain a high number of participating countries by further stimulating interest in telecom issues and to better ensure that passed recommendations are effectively implemented. Here again, an online collaborative platform could fulfil those expectations while ideally complementing physical regional events.

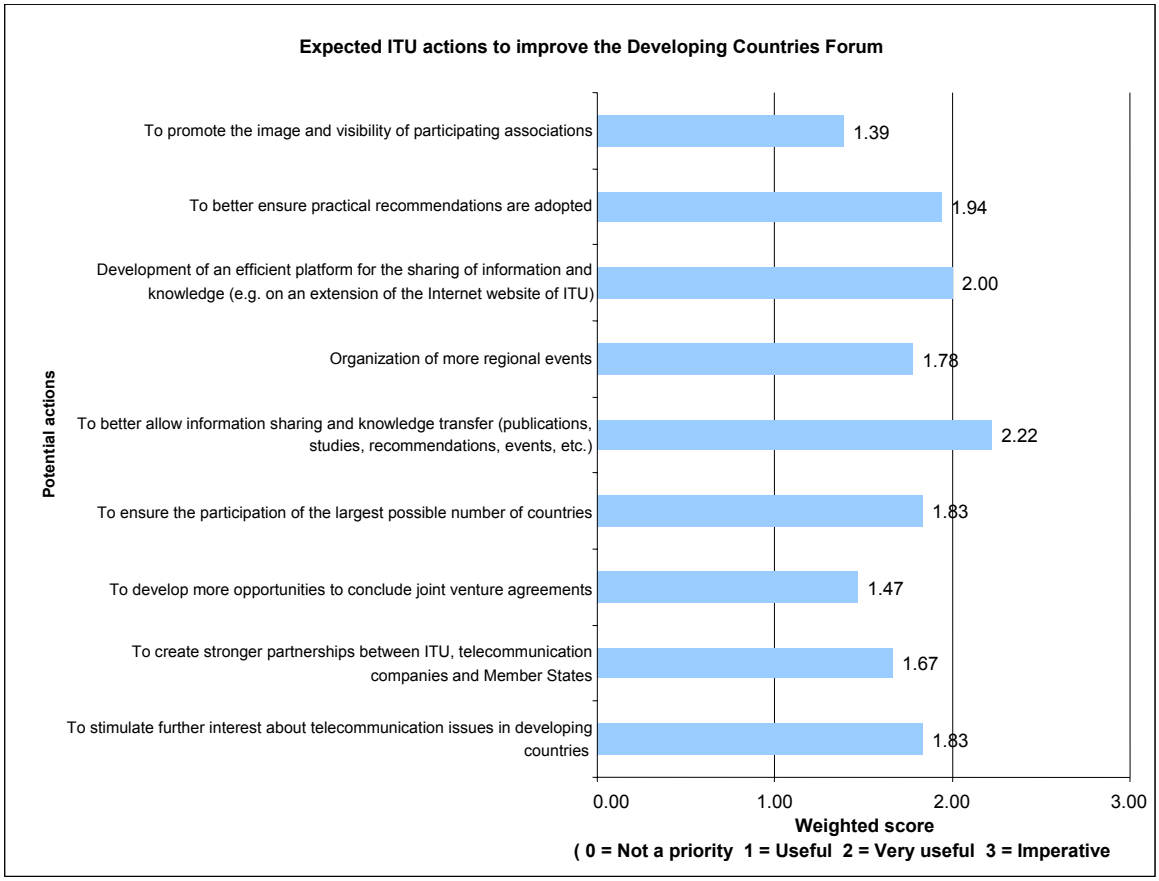


Figure 26 – Expectations relative to the Developing Countries Forum (weighted)

6 Conclusion

The direction of the recommendations were in line with the actual situations and telecommunication activities in the countries of the region. However, it must be noted that the response rate for the survey was 50%, rendering the analysis questionable in two respects: the results are quite sensitive to additional answers and the positions of countries not responding remain unknown. Additional efforts will be made to increase the response rate for the next surveys.

On average, the degree of implementation of the recommendations aiming at developing the Information Society in the region has slightly increased: 94% of the surveyed countries declared promoting the use of the Internet (versus 65% in 2000) and 83% declared collaborating with neighbours to develop synergies (versus 53% in 2000). This increase over time clearly means that the recommendations made must be seen as long-term programmes – taking 5 to 7 years to reach region-wide coverage – thus requiring long-term set-up support and ongoing monitoring.

Regarding the recommendations identified at ITU TELECOM ASIA 2000, more than 50% of surveyed countries declared having defined plans for providing Universal Access to each of the recommended services (except for Internet Broadband) and 60% have implemented one or more telecentres. Nevertheless the implementation of the recommendations varies by country depending on the specific economic, social and geographic situations.

The overall rating of ITU's promotional role in supporting ASIA 2000 recommendations is positive. Indeed, about 70% and 60% of the countries assessed ITU's role as *good* or *very good* for promoting Universal Access and telecentres respectively.

Regarding the ITU general support role, two main contribution elements were particularly appreciated: the usefulness of the information available on the ITU website and the efficiency of TDS as a development catalyst for countries. Both elements were evaluated as *good* or *very good* by 95% and 94% of the surveyed countries respectively.

For the second time since ASIA 2000, a section devoted to the expectations of the Fellows was included in the questionnaire.

Topping the ranking of expectations relative to the development of telecommunications is the need to raise the level of awareness of decision-makers concerning the role of telecommunications. In second and third position come the importance of promoting the development of telecommunication networks and services and the importance of mobilizing resources to provide assistance to developing countries.

Today, many Fellows clearly expect more efficiency in the process of information and knowledge sharing from the Developing Countries Forum. This process is also expected to be ongoing and not limited to the period when the Forum takes place. In order to support the TDS objectives and fulfil the Fellows' expectations, a more efficient communication platform – federating all the stakeholders – should be put in place. In the future, truly interactive services will play a key role in the interaction process between ITU and the Member States as well as between the Member States. Finally, the Fellows expect ITU to maintain a high number of participating countries by further stimulating interest in telecom issues and to better ensure that passed recommendations are effectively implemented.

At ITU TELECOM ASIA 2002, participants will have a unique opportunity to actively share experiences and discuss their expectations.

Welcome to ITU TELECOM ASIA 2002.