



**Proposed Guidelines for the Implementation and Progress
Monitoring of the
Arab Regional Roadmap for Internet Governance**

Open consultation ends on 28 February 2011

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Preface

Following five global events of the Internet Governance Forum (IGF), the IGF proved to be a suitable discussion medium that provides all stakeholders with a platform to exchange expertise and plan the way ahead. Despite its non-binding nature, the IGF process has been an important pillar in the policy making process of Internet governance. At the fifth IGF held in September 2010, there was consensus on the need to renew the mandate for five more years. Accordingly, the General Assembly resolution A/RES/64/187 on information and communication technologies for development justified the need for renewing the IGF mandate for five more years.

In order to ensure appropriate participation and positioning of the Arab region in the Internet governance arena, Arab countries need to take far-reaching commitments and policy measures. There is thus a need for a shared regional vision of Internet governance and a shared understanding to aide these countries towards transforming the threats and challenges of the Internet into opportunities for development. The Arab Regional Roadmap for Internet Governance was envisioned by ESCWA as fulfilment to this need by presenting a clear strategic framework that intends to tackle Internet governance matters from a regional perspective. It came as the result of multistakeholder involvement: ESCWA and the League of Arab States (LAS) as regional organizations, governments, the private sector and civil society. The roadmap was discussed and deliberated in detail at the Expert Group Meeting (EGM) on Regional Roadmap for Internet Governance (25-26 October 2010) that was held at the UN House in collaboration with LAS. The roadmap was formally adopted by the participants at the EGM and was included as a key item in the Call from Arab Stakeholders that was formulated and launched at the EGM¹.

The Call from Arab Stakeholders specified that the roadmap will be complemented by another document that proposes the means for implementation and progress monitoring. As a result, the current guidelines are proposed for future review, refinement and enrichment through public online consultations and the Arab IGF process once it is launched. These guidelines are a direct extension of the regional roadmap and should only be considered in conjunction with the main regional roadmap.

¹ The Call of Arab Stakeholders is available at <http://css.escwa.org.lb/ictd/1301/16.pdf>

Contents

<i>Preface</i>	2
I. Introduction	4
II. Adopted Methodology	4
A. Strategies and Actions for Implementation.....	5
B. Progress Monitoring.....	5
III. Subprogramme 1: Institutional empowerment	6
IV. Subprogramme 2: Critical Internet Resources	9
V. Subprogramme 3: Access	11
VI. Subprogramme 4: Cultural and Linguistic Diversity	13
VII. Subprogramme 5: Security and Privacy	15
VIII. Subprogramme 6: Openness	17
IX. List of Suggested Performance Indicators	19
X. Final Notes	21

List of Tables

Table 1: Indicators of Achievement for Institutional Empowerment	8
Table 2: Indicators of Achievement for Critical Internet Resources	10
Table 3: Indicators of Achievement for Access.....	12
Table 4: Indicators of Achievement for Diversity	13
Table 5: Indicators of Achievement for Security.....	15
Table 6: Indicators of Achievement for Openness.....	18

I. Introduction

During 2010, ESCWA, in partnership with the Leagues of Arab States (LAS), was leading efforts to formulate the Arab Regional Roadmap for Internet Governance: Framework, Principles and Objectives. Developing the regional roadmap was based on a multistakeholder approach that ended with endorsing the roadmap at the Expert Group Meeting on Regional Roadmap for Internet Governance (Beirut, 25-26 October 2010).

The methodology adopted for designing, managing and implementing the roadmap is based on the “result-based” model. It uses a structure referred to as the “Logical Framework”, or logframe which contains the following hierarchically ordered components: objectives, expected accomplishments, external factors, strategy, actions and indicators of achievement.

II. Adopted Methodology

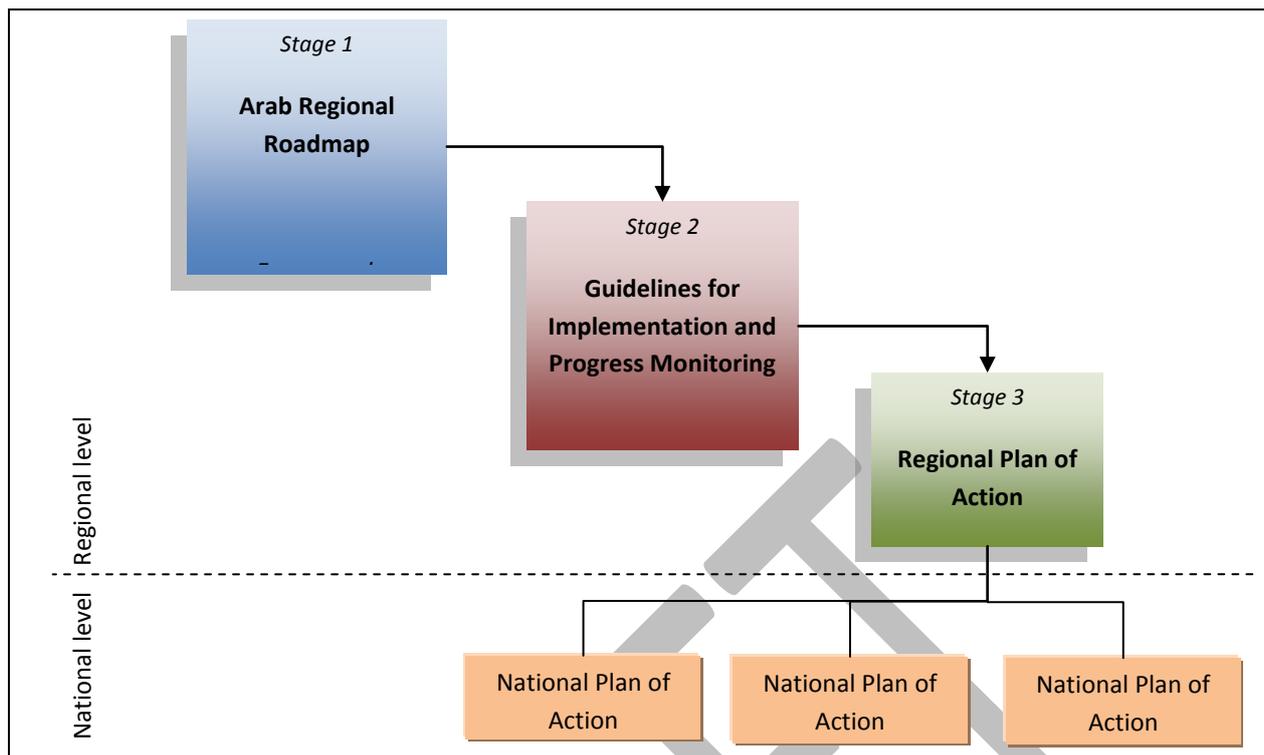
For developing the roadmap’s logframes, the objectives, expected accomplishments and external factors were selected. The current document “Guidelines for the Implementation and Progress Monitoring of Internet Governance Thematic Subprogrammes” is based on the roadmap and derived from its logframes. It caters to the strategies, guidelines for policy and action and indicators of achievement of each subprogramme. It is thus a complementation and should only be considered in conjunction with the main regional roadmap. The current document is stage 2 of a three-stage process as explained in the box below. Figure 1 details the structure and positioning of these three stages.

Box 1. Stages of Internet Governance

Three stages are envisioned to achieved good Internet governance in the Arab region:

- Stage 1** – a clear strategic framework that intends to tackle Internet governance matters from a regional perspective through the “Arab Regional Roadmap for Internet Governance – Frameworks, Principles and Objectives”;
- Stage 2** – “Guidelines for the Implementation and Progress Monitoring of the Arab Regional Roadmap for Internet Governance”;
- Stage 3** – to be built on the previous two stages in the form of a plan of action that will define specific activities, projects, programmes, and initiatives on the national and regional levels based on financial and human resources available to each country.

The three stages are depicted in the figure below.



A. Strategies and Actions for Implementation

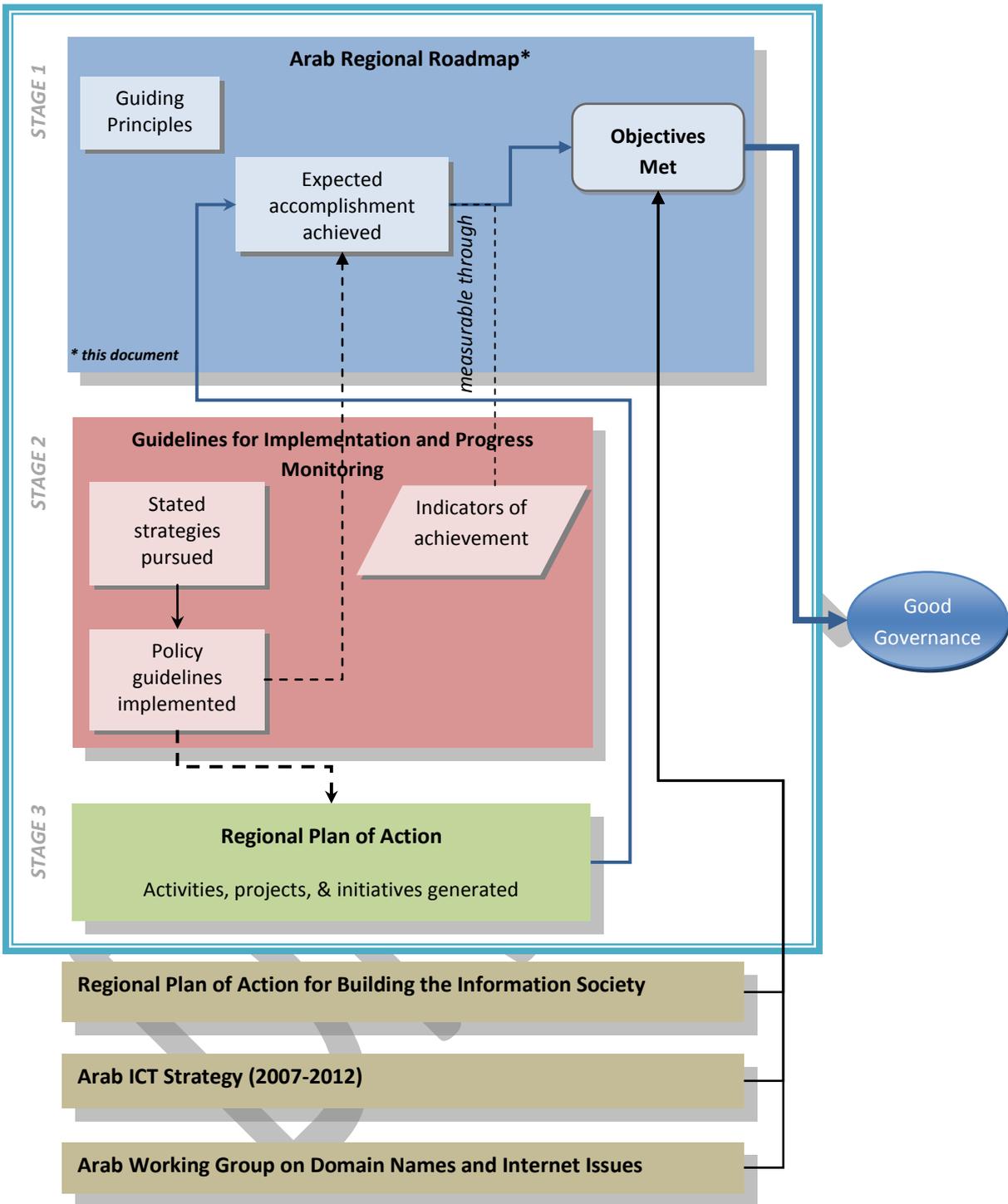
General implementation of the roadmap will rest on the strategies and recommendations for policies and actions presented in the current document. For each logframe, the *strategy* should answer the question “How are we going to achieve the expected results?” The underlying logic for carrying out a series of activities necessary and sufficient to achieve the expected accomplishments should be fully apparent from the stated strategy.

The recommended policies and actions are intended to transform resources into outputs for the purpose of achieving the intended results.

B. Progress Monitoring

The indicators of achievement will be used to measure to what extent the objectives and expected accomplishments have been achieved. Indicators correspond either directly or indirectly to the objective or the expected accomplishments and are used to measure performance. They answer the questions: “What will show us that the expected accomplishments have indeed taken place? What do we want to know about the results of our efforts? What are we measuring?” The strategy should highlight the focus of efforts to be made within a set period to meet the needs of intended beneficiaries and to achieve the expected results. “How are we going to achieve the expected results?”

Figure 1. Structure and Positioning of the Guidelines



III. Subprogramme 1: Institutional empowerment

Objective

To play a substantial role in shaping a more balanced, internationalized, transparent and accountable institutional governance schemes for global public policy-making.

Strategy

The Arab region is observing with interest the transition of technical coordination of the Internet's name and numbering resources from the United States government to ICANN; which is claimed to be able to meet the needs of a wide-array of stakeholders. The Joint Project Agreement (JPA) between ICANN and the United States Department of Commerce ended in 2009 – a first positive step for the region towards establishing a truly international organization. There is still a need for increased internationalization of ICANN and more tangible improvements in its policy-making process and representation of governments and developing countries. The Arab community considers that the debate related to ICANN transition action plan was an opportunity to improve the enhanced cooperation to the benefit of developing countries.

The stakes are considerable, and the Arab region should seek to increase the level of awareness on the importance of Internet governance issues and their impact on the spread of the Internet in Arab countries. Internet governance issues should no longer be confined to specific technical circles but rather attract wider participation from all concerned communities.

Through this subprogramme, Arab countries will seek to improve their representation to reflect the needs and views of the region at the decision-making level, which is to be achieved through a number of strategic undertakings. The region will seek to acquire high level representation within one or more of ICANN's committees/constituencies, effectively participate in ITU's policy-making process, and contribute to standardization of other international bodies such as the IETF. Arab governments will seek to have the "Arab Region" recognized for geographical representation in Internet governance issues.

To ensure optimal results, the Arab region shall coordinate efforts between countries as often as needed to reflect a unified representation, whenever possible and necessary, of priority needs. Local, national and regional meeting shall serve this purpose. Accordingly, the region shall launch and establish a robust mechanism for an "Arab IGF" to replicate the global IGF.

Guidelines for Policy and Action

- Establish an Arab IGF to be launched for a period of 5 years and organized regionally based on a model similar to that of the global IGF;
- Improve the mechanisms of policy development in the region;
- Increase the outreach of IGF discussions and issues in the Arab region beyond the traditional technical circles where it is being currently conducted;
- Ensure high-level representation of Arab countries in future international Internet governance events similar to the IGF;
- Coordinate local and regional efforts in preparation for international Internet policy-making conferences and/or meetings;
- Undertake all necessary actions to acquire better representation of the Arab region in Internet policy-making bodies; for example, the ICANN board of directors and/or GAC;
- Undertake all necessary actions to have the interests of the Arab region fully recognized based on its official geographical representation.
- Proactively participate in the policy-making process following improved representation and influence of the Arab region;
- Fund scholarships and research programmes to contribute to standardization efforts such as those of IETF;
- Fund fellowship programmes to facilitate participation in international meetings such as those of ICANN;

- Launch an Arab Volunteer Experts (AVE) programme to participate in public input to ICANN review committees and other IG bodies.

Indicators of Achievements

Table 1: Indicators of Achievement for Institutional Empowerment

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		<i>National</i>	<i>Regional</i>
EA1.1 Improved level of active participation of Arab stakeholders in the Internet global public policy-making process;	IA.1 Increased number of participants from the Arab region in ICANN and ITU meetings	Number	Aggregate
	IA.2 Increased number of Arab participants in upcoming global IGFs	Number	Aggregate
EA1.2 Improved representation of all Arab stakeholders at the leadership and decision-making level in Internet public policy-making bodies and constituencies;	IA.3 Increased number of positions obtained at the decision-making level in ITU and the GAC of ICANN's governance structure	Number	Aggregate
	IA.4 Number of policies contributed to by Arab delegates	Number	Number
EA1.3 A robust regional mechanism for advocating Internet governance issues launched;	IA.5 Regional mechanisms established for discussing Internet governance issues for the Arab region such as an Arab IGF and/or online Arab dialogue	Yes/No	Yes/No
	IA.6 Increased number of countries participating in the Arab IGF process	Yes/No	Count
EA1.4 Enhanced cooperation on the sub-regional/national level.	IA.7 Number of formal partnerships or initiatives related to IG issues	Number	Aggregate

IV. Subprogramme 2: Critical Internet Resources

Objectives

1. To ensure the stability, security, and resiliency of the DNS;
2. To expand the TLDs pertaining to the Arab region in the DNS;
3. To effectively deploy IP addresses.

Strategy

Through this subprogramme, the region will seek multi-stakeholder governance of the master root zone file through involving some or all the Arab governments. The Arab region should play a role in general policy formulation pertaining to the stability and security for continuity of the Internet. It will also work towards ensuring the security of the DNS by formulating a clear plan for root zone signature.

To further contribute to attaining the above objectives and achieve the targeted accomplishments, the Arab region should opt to be an active player in the expanded domain name space on two levels. The first level covers shaping the DNS to the benefit of the Arab region through participation in policy-making, particularly bottom-up policy for the introduction of IDNs; namely those for the Arabic language. The second level involves promoting, utilizing, and marketing new domain names for the Arab region, whether gTLDs or ccTLDs, using ASCII characters or Arabic IDNs. Arab countries should thus maintain support for full IDNs. New gTLDs will open the way for the establishment of new registrars, and countries should encourage investment in the “registrar” industry.

Although IP numbers are a common resource that serves the global community, there remains an inequitable distribution of IPv4 addresses. As the IPv4 address space is being depleted, there is a need to adopt an optimal policy for reclaiming and reusing unused IP addresses. The Arab region will thus seek to effectively and fairly obtain part of the remaining IPv4 address space so as to facilitate Internet growth in the region. It will in parallel prepare the Arab community for the deployment of, and the transition to, IPv6.

Furthermore, Arab countries are affiliated to the regional Internet registries of Africa and Europe reflecting absence of a regional Internet registry to represent the Arab region. Arab countries should thus consider the establishment of a regional Internet registry (RIR) for the Arab region.

Guidelines for Policy and Action

- Facilitate reclamation and reuse of a substantial amount of unused IPv4 addresses and redistributing them fairly to ensure balanced access to resources on a geographical basis. This may be done through existing RIRs and should include inter-regional IPv4 address transfer.
- Study and analyze the strategic importance of establishing a new RIR for the Arab region – with a possible name of ArabNIC.
- Conduct an opinion poll targeting governments, the private sector and civil society on the feasibility and use of forming a coalition that is representative of the Arab geographic area.
- Seek to change restrictions on allocating IP addresses to developing countries with a view to providing more liberal and competitive allocations for all countries.
- Forge a formal relationship with root server operators located in the Arab region who operate based on a contract with ICANN in order to set the rules of management for these servers with a view to alleviate the concern that the control of the master root zone file is retained by one government entity.
- Adopt recommended security measures by directing ccTLD operators in the Arab region to deploy DNSSEC in their zones and fostering the implementation of Public Key Infrastructure (PKI).

- Encourage establishing Arab gTLDs such as the “.arab” and its equivalent in Arabic characters. This shall lead to the establishment of a new regional registry and should encourage administration through parties/companies in the region. When new gTLD registries are formed, a continuity plan should be put in place accompanied with testing of the data escrow system.
- Undertake effective actions to raise awareness of the importance of IPv6 and encourage participation in its development, promotion and deployment. This could be facilitated through the formation of an Arab IPv6 Task Force and affiliated national task forces.
- Secure adequate shares of IPv6 pools for Arab countries based on population and expected growth rates.
- Ensure smooth and swift transition from IPv4 to IPv6 including making Arab Internet backbones IPv6-compatible.

Indicators of Achievements

Table 2: Indicators of Achievement for Critical Internet Resources

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		National	Regional
EA1.1 Improved implementation of security measures for the DNS in the Arab region	IA.8 Public policies for ccTLD operation announced	Yes/No	Number
EA2.1 Enhanced role of the Arab region in the decision making process for developing the DNS	IA.9 Increase in number of countries participating in DNS decision making process	Yes/No	Number
EA2.2 Improved Arab presence in the TLD space	IA.10 Increase in number of Arab ccTLDs in Arabic script	Yes/No	Number
	IA.11 Increase in number of Arab gTLDs in Arabic script	Number	Number
	IA.12 Increase in number of ASCII gTLDs representing the Arab region – such as “.arab”	Number	Number
	IA.13 Increase in the number of registrants in the Arab region	Number	Number
EA3.1 Increased number of IPs in the Arab region	IA.14 Increased number of IPv4 addresses in the Arab region	Number	Number
	IA.15 Increased percentage of used IPv6 addresses in the Arab region	Number	Number
EA3.2 Increased capacity in the region to implement IPv6	IA.16 Increased number of Arab countries implementing backbone projects compatible with IPv6	Number	Number
	IA.17 Increase in number of Arab countries launching initiatives to promote IPv6 and ensure a smooth transition	Yes/No	Number

V. Subprogramme 3: Access

Objective

To narrow the Internet access divide between the Arab region and developed regions

Strategy

Through this subprogramme, the Arab governments will raise awareness of all community members on Internet use in general. They will have promotional campaigns to increase Internet use by all communities. They will also raise awareness on affordable Internet-enabled devices in parallel with facilitating the purchase of Internet access devices. Arab countries will provide incentives for the wide use of ICTs in order to facilitate the emergence of a new generation of Internet users. Special programmes, loans or regulations such as tax exemptions should be put in place so that low-income people can purchase needed basic devices and services. The region will also emphasize the role of civil society in spreading Internet access by promoting a non-commercial, Web-based and self-publishing media outlet, which will increase public awareness, participation and accountability. The Arab region will also convey to the industry the need of the users for reliable and easy to use Internet accessible products at reasonable prices.

Upgrading the telecom infrastructure in the region will also be one of the main enablers of improved Internet access. Through this subprogramme, the Arab region will opt to be integrated into the “global Internet backbone” with a view to reducing costs. Through the global IGF, the Arab region should push for reduced connectivity prices or for revisiting the costing model of the international bandwidth utilization in general. It will also work for a balance between outgoing and ingoing Internet traffic.

Ensuring universal Internet access at lower costs and faster links will require the participation of the private sector. The Arab countries will thus formulate and enact suitable legislation to stimulate the private sector and set the groundwork for market liberalization.

The language issue comes next and applies to content, user interfaces, search engines and addressing schemes. In order to achieve the “Internet-for-all” principle, the Arab region will promote the development of Internet applications and tools in Arabic or in other languages that serve the Arab region. This will allow for increasing content availability which should also be coupled with increased Web site hosting in the Arab region.

Guidelines for Policy and Action

- Launch national and regional awareness campaigns on the importance and proper use of the Internet;
- Introduce courses on Internet use as part of formal school education;
- In partnership with the private sector, facilitate the acquisition of access devices at reasonable prices through; for example, loans or incentives;
- Promote competitive and collaborative models for providing access to the Internet such as community telecentres or access points which will require collaboration with NGOs;
- Opt for multilateral agreements between the Arab countries and Internet backbones operators to reduce connectivity cost;
- Promote Internet access through wireless solutions;
- Encourage the establishment of, and accessibility to national and regional Internet exchange points;
- Develop tools and software to help people with special needs and motivate them to use the Internet;
- Involve NGOs in identifying the needs of people with disabilities;

- Increase regional technical participation with regard to the standardization of tools and devices related to the needs of the Arab region;
- Promote the use of the Arabic language on the Internet through promoting the production of digital Arabic content, building government e-services and registering domain names;
- Facilitate the hosting of Websites on servers in the Arab region.

Indicators of Achievement

Table 3: Indicators of Achievement for Access

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		National	Regional
EA1.1 Enhanced accessibility to Internet-access devices and availability of access points in disadvantaged areas	IA.18 Increased number of Internet users	Number	Number
	IA.19 Increased number of installed PC base	Number	Number
	IA.20 Increased number of access centres	Number	Number
	IA.21 Availability of official Internet education at the school level	Yes/No	Count
EA1.2 Increase in the availability of Arabic digital content and user-friendly Internet applications with Arabic interfaces	IA.22 Increased percentage of Arab Web sites of total available websites online	Number	Number
	IA.23 Increased number of Arabic domain names	Number	Number
	IA.24 Increased number of Websites under Arab gTLDs	Number	Number
EA1.3 Enhanced infrastructure allowing access to the Internet	IA.25 Increased international bandwidth in Gbps	Number	Number
	IA.26 Increased national broadband capacity	Number	Number
	IA.27 Increased Internet traffic representing the extent of utilization	Number	Number
	IA.28 Increased number of national/regional Internet Exchange Points	Number	Number
EA1.4 Reduced cost of Internet access	IA.29 Decreased cost of purchasing international bandwidth (per E1)	Number	Number
	IA.30 Decreased average monthly user cost (per 512Kbps)	Number	Number

VI. Subprogramme 4: Cultural and Linguistic Diversity

Objective

1. To improve the presence of the Arabic language and culture on the Internet;
2. To expand the TLDs pertaining to the Arab region in the DNS.

Strategy

Through this subprogramme, Arab countries will strive to increase the quantity and quality of Arabic digital content to ensure a properly diverse Internet when it comes to languages. National and regional programmes and initiatives should be launched to raise awareness on this issue, to implement digital content development projects, and to raise funds for such projects. The Arab region will promote the development of language processing tools and applications as well as the localization of online applications. This may be done through fostering and establishing research and development programmes for the purpose. Online content relevant to the Arab region in other languages also plays a role in increasing online diversity.

To allow for the development of a complete Arabic environment, Arab countries will foster the use of domain names in Arabic, which will allow for increasing content availability and should be coupled with increased website hosting in the Arab region. It is possible to obtain substantial amounts of valuable content and place them on local servers.

Needless to say, adopting the strategy for increased ‘access’ will lead to improved user ‘diversity’.

Guidelines for Policy and Action

- Contribute to formulating bottom-up policy for the continuation of IDNs, particularly those for the Arabic language;
- Maintain support for full IDNs;
- Encourage establishing Arab gTLDs such as the “.arab” and its equivalent in Arabic characters. This shall lead to the establishment of a new regional registry and should encourage administration through parties/companies in the region;
- Promote the use of the Arabic language for developing and using digital content, building government e-services, registering domain names, and hosting websites on servers in the region;
- Encourage investments in digital content development including applications, services and language processing tools. Such tools are useful for a multitude of applications including search engines, translation, text-to-speech, etc.;
- Launch research units at universities and local institutions to promote, measure, and implement digital content programmes/projects;

Indicators of Achievement

Table 4: Indicators of Achievement for Diversity

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		<i>National</i>	<i>Regional</i>
EA1.1 Improved availability of digital Arabic content and services online	IA.22 Increased percentage of Arab Web sites of total available websites online	Number	Number
	IA.23 Increased number of Arabic domain names	Number	Number
	IA.24 Increased number of Web sites under Arab gTLDs	Number	Number

EA1.2 Enhanced number of Arab Internet users	IA.18 Increased number of Internet users	Number	Number
EA2.1 Enhanced role of the Arab region in the decision making process for developing the DNS	IA.9 Increase in number of countries participating in DNS decision making process	Number	Number
EA2.2 Improved Arab presence in the TLD space	IA.10 Increase in number of Arab ccTLDs in Arabic script	Number	Number
	IA.11 Increase in number of Arab gTLDs in Arabic script	Number	Number
	IA.12 Increase in number of ASCII gTLDs representing the Arab region and language – such as “.arab”	Number	Number

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VII. Subprogramme 5: Security and Privacy

Objective

1. To enhance cyber security in the Arab region;
2. To protect Arab Internet users against harmful content and cyber crimes.

Strategy

Through this subprogramme, Arab countries will ultimately aim at providing a safe and secure Internet for all by decreasing attacks and legally protecting the users against computer crimes. To decrease attacks, the Arab countries should exert efforts in raising the awareness of Internet users on the latest security risks as these evolve on a continuous basis, increasing investment in security measures, and establishing teams that are dedicated to blocking and healing Internet attacks. There should also be regional backup and connectivity measures in order to overcome such incidents as damaged submarine cables.

The Arab countries should develop national policies to regulate keeping logs of Internet access in order to legally protect users. Furthermore, cyber laws should be established and enforced in order to provide a solid reference to crimes on the Internet. Arab countries should cooperate for that purpose as truly achieving a secure Internet should be accomplished on the regional level.

There remains a high level of overlap and contradiction between ensuring a secure, yet private and open Internet; adopted strategies should also be aligned with the openness subprogramme.

Guidelines for Policy and Action

- Encourage the Arab community to engage in DNSCERT of ICANN;
- Establish Computer Emergency Response Teams (CERTs) in all countries in the region;
- Organize national and regional security conferences;
- Implement DNSSEC at the ccTLD and gTLD registries;
- Raise awareness and build capacities on security-related topics;
- Encourage investment in security tools and applications;
- Establish national cyber security policies;
- Establish cyber laws nationally and collaborate, regionally and globally, on the jurisdiction of those laws in cross-border attacks;
- Cooperate in acquiring, sharing and developing secure infrastructure.

Indicators of Achievement

Table 5: Indicators of Achievement for Security

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		<i>National</i>	<i>Regional</i>
EA1.1 Reduced number of reported incidents that negatively impact the Internet service in the Arab region	IA.31 Reduced number of reported incidents that negatively impact the Internet service in the Arab region	Number	Number
EA1.2 Decreased incident response time	IA.32 Reduced average incident response time for attacks on national network resources	Number	Number

EA1.3 Increased security measures	IA.33 Established CERTs	Number	Number
	IA.8 Public policies for ccTLD operation announced	Yes/No	Number
EA1.4 Enhanced user awareness on security matters	IA.34 Increased number of educational initiatives to deliver security courses	Number	Number
	IA.35 Increased number of research studies on security issues	Number	Number
	IA.36 Increased number of security-related conferences/workshops/seminars	Number	Number
EA1.5 Established policy and legal frameworks for cyber security	IA.37 Established cyber security policies	Yes/No	Number
EA2.1 Established policy and legal framework for content filtering and censorship	IA.38 Established filtering mechanisms at ISPs	Yes/No	Count
	IA.39 Established laws on child protection	Yes/No	Count
	IA.40 Established policies on pornography and illegal content	Yes/No	Count

VIII. Subprogramme 6: Openness

Objective

1. To enhance the status of a culturally open yet safe Internet in the Arab region
2. To improve Internet openness for development purposes

Strategy

This subprogramme directs the Arab region towards expanding the margins of Internet openness. This will be achieved either by establishing flexible laws and policies that would allow for greater openness or through terminating measures that tend to limit open speech and expression. Privacy also contributes to increased online openness by allowing users anonymity on the Web and is an overlapping issue with the security subprogramme.

National, subregional and inter-regional dialogue will need to take place to that effect. Additionally, national specificities will apply and should be determined on the basis of dialogue between the different stakeholders and in liaison with legal entities. These laws however, would need to ensure the user safety including, inter alia, child protection and protection against harmful content. Here, the need for filtering harmful content should strike a balance between the requirement of the security subprogramme.

Internet openness is also considered to entail the ability to freely access information and knowledge. Censorship is still applied in the Arab countries to varying degrees that limit access to information, knowledge and certain online services. The Arab region will consider facilitating better access to information and knowledge.

The issue of how intellectual property protection laws place developing countries at a disadvantage has been widely discussed. To that effect, the region shall seek changes to the laws that deal with copyrights in order to obtain more privileges for Internet users in the Arab countries to access research and published material.

Open source technologies are also viewed as valuable means to increase Internet openness. Although gaining popularity, open source software is still limited in use within the Arab region, particularly in government institutions and the private sector. Accordingly, the Arab countries should organize awareness campaigns at the governmental level and including administration, research institutions and universities to introduce open source technologies.

Guidelines for Policy and Action

- Enact national laws that regulate online speech and expression while allowing for increased freedom;
- Introducing amendments to the laws that address copyrights to guarantee an easier access to knowledge and information and opt for a new cross-border law that deals with copyright over the Internet;
- Launch capacity building programmes about open source technologies and establish a library for open source content;
- Support research and software development that will serve the needs of the Arab region under a open source license and facilitate effective migration to open source platforms;
- Develop and publish country reports to analyse the current state of access to knowledge in each Arab country and the obstacles and procedures in place.

Indicators of Achievement

Table 6: Indicators of Achievement for Openness

Expected Accomplishments	Indicators of Achievement	Measurement Level	
		<i>National</i>	<i>Regional</i>
EA1.1 Improved online expression and access to services	IA.41 Increased use of social media	Yes/No	Number
EA2.1 Increased access, use and development of open source technologies	IA.42 Availability of a policy recommending the use of open source	Yes/No	Number
EA2.2 Decreased restriction on open access to knowledge	IA.43 Modified, more flexible, laws on intellectual property	Yes/No	Number
	IA.44 Decreased restrictions on access to technologies based on geographic location		

IX. Suggested Performance Indicators

The use of indicators of achievement is proposed as means to measure progress. This task is to be counted on a national level first and then values can be aggregated by LAS or other regional institutions in order to draw the impact and monitor/measure the progress of Internet governance at the Arab regional level. In order to emphasize the importance of the result-based structure approach used, it is strongly recommended to adopt the set of indicators and interpret them on the national level in parallel to other measurement means such as stock-taking. This will allow for harmonized monitoring at the regional level. This effort is not only essential for the roadmap, and not only for the Arab region, but rather its benefits extend to nurture other activities like national and region profiling, ICT measurement, and ICT impact analysis. It's not only applicable to the Arab region but possible other regions with slight adaptation. Hence a subset of core Internet governance indicators may be extracted and harmonized based on this document for use in other regions.

- IA.1 Increased number of participants from the Arab region in ICANN and ITU meetings
- IA.2 Increased number of Arab participants in upcoming global IGFs
- IA.3 Increased number of positions obtained at the decision-making level in ITU and the GAC of ICANN's governance structure
- IA.4 Number of policies contributed to by Arab delegates
- IA.5 Regional mechanisms established for discussing Internet governance issues for the Arab region such as an Arab IGF and/or online Arab dialogue
- IA.6 Increased number of countries participating in the Arab IGF process
- IA.7 Number of formal partnerships or initiatives related to IG issues
- IA.8 Public policies for ccTLD operation announced
- IA.9 Increase in number of countries participating in DNS decision making process
- IA.10 Increase in number of Arab ccTLDs in Arabic script
- IA.11 Increase in number of Arab gTLDs in Arabic script
- IA.12 Increase in number of ASCII gTLDs representing the Arab region – such as “.arab”
- IA.13 Increase in the number of registrants in the Arab region
- IA.14 Increased number of IPv4 addresses in the Arab region
- IA.15 Increased percentage of used IPv6 addresses in the Arab region
- IA.16 Increased number of Arab countries implementing backbone projects compatible with IPv6
- IA.17 Increase in number of Arab countries launching initiatives to promote IPv6 and ensure a smooth transition
- IA.18 Increased number of Internet users
- IA.19 Increased number of installed PC base
- IA.20 Increased number of access centres
- IA.21 Availability of official Internet education at the school level
- IA.22 Increased percentage of Arab Web sites of total available websites online
- IA.23 Increased number of Arabic domain names
- IA.24 Increased number of Web sites under Arab gTLDs
- IA.25 Increased international bandwidth in Gbps
- IA.26 Increased national broadband capacity
- IA.27 Increased Internet traffic representing the extent of utilization
- IA.28 Increased number of national/regional Internet Exchange Points
- IA.29 Decreased cost of purchasing international bandwidth (per E1)
- IA.30 Decreased average monthly user cost (per 512Kbps)
- IA.31 Reduced number of reported incidents that negatively impact the Internet service in the Arab region
- IA.32 Reduced average incident response time for attacks on national network resources
- IA.33 Established CERTs
- IA.34 Increased number of educational initiatives to deliver security courses
- IA.35 Increased number of research studies on security issues
- IA.36 Increased number of security-related conferences/workshops/seminars
- IA.37 Established cyber security policies
- IA.38 Established filtering mechanisms at ISPs
- IA.39 Established laws on child protection
- IA.40 Established policies on pornography and illegal content
- IA.41 Increased use of social media
- IA.42 Availability of policy recommending the use of open source

- IA.43 Modified, more flexible, laws on intellectual property
- IA.44 Decreased restrictions on access to technologies based on geographic location

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X. Final Notes

As previously explained, the current guidelines are stage of a three-stage process to achieve good Internet governance in the Arab region within global ongoing efforts for this issue. These guidelines are in need of a close review and enhancement. They will be part of the upcoming mechanism for Internet governance in the region through the Arab IGF and will also be subject to public consultations through online posting.

Once the guidelines document is refined, the Arab countries will embark on developing a Regional Plan of Action for Internet Governance. This plan of action will be a collective effort and will be in line with the Arab ICT Strategy and the Regional Plan of Action for building the information society thus avoiding duplication. Proper resources will need to be allocated to activities on the national and/or regional level, which will then be aggregated into the Regional Plan of Action. The formulation of this plan from the national to the regional level will thus be based on a bottom-up approach.

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