Chapter V

STUDY OF INTERNET GOVERNANCE MODELS AND PROPOSALS

5.1 Introduction:

Some of the challenging and critical situations with reference to governance of internet can be usefully analysed by ideal types or models of Internet governance. The best possible solution to this challenge is most straightforward one: simply present the models and demonstrate that they can do interesting work. The models presented here are ideal types; we take a set of ideas about Internet governance and construct a model that is representing a particular logical theme of ideas. Clear understanding of Internet Governance can be achieved by examining these models in relationship to the interaction between Internet architecture and traditional policy analysis. Subsequent sections of this chapter explore the following models of Internet Governance:

5.2 Models proposed by Working group on Internet Governance (WGIG):

World summit on the information society, conducted at Geneva in year 2005 published declaration of principles consisting of few paragraphs related to internet governance. Para ‘50’ in the declaration statement demands secretary general of United Nations, to set up a ‘working group on internet governance’ and make proposals for action, as appropriate on the governance of internet. WGIG submitted its report in year 2005 with four different organisational models, and we are presenting them here as they are published in the report, followed by short analysis of each model.
5.2.1 Model – 1

1. “This model proposes a Global Internet Council (GIC), consisting of members from Governments with appropriate representation from each region and with involvement of other stakeholders. This council would take over the functions relating to international Internet governance currently performed by the Department of Commerce of the United States Government. It would also replace the ICANN Governmental Advisory Committee (GAC).

2. The functions of the GIC should include:

• Setting of international Internet public policy and providing the necessary oversight relating to Internet resource management, such as additions or deletions to the root zone file, management of IP addresses, introduction of gTLDs, delegation and re-delegation of ccTLDs.

• Setting of international public policy and coordination for other Internet-related key issues, such as spam, privacy, cyber security and cybercrime, which are not being fully addressed by other existing intergovernmental organizations.

• Facilitating negotiation of treaties, conventions and agreements on Internet-related public policies.

• Fostering and providing guidance on certain developmental issues in the broader Internet agenda, including but not limited to capacity-building, multilingualism, equitable and cost-based international interconnection costs, and equitable access for all.

• Approving rules and procedures for dispute resolution mechanisms and conduct arbitration, as required.
3. The relationship between the GIC and technical and operational Internet institutions, such as the reformed and internationalized ICANN, should be formalized. In this model, ICANN will be accountable to GIC.

4. The GIC should be anchored in the United Nations.

5. For the issues dealt with in this body, the governmental component will take a leading role. The private sector and civil society will participate in an advisory capacity”.

Analysis: Originally based on para 52,53,54,55 & 56 of WGIG report 2005. Proposes the formation of ‘Global internet council’ (GIC) consisting of members from governments and involvement of other stakeholders. Replaces ICANN governmental advisory committee (GAC) and makes ICANN accountable to GIC. Civil society and private sector is given advisory role.

5.2.2 Model – II

1. “There is no need for a specific oversight organization.

2. It may be necessary to enhance the role of ICANN’s Governmental Advisory Committee (GAC) in order to meet the concerns of some Governments on specific issues.

3. The forum, as proposed in section V.A.1 above, with full and equal participation of all stakeholders, could, in addition to the various functions set out therein, provide coordination functions for participating stakeholders and produce analysis and recommendations on some issues.

4. This forum would provide a coordination function for participating stakeholders by creating a space in which all issues involving the existing Internet governance organizations could be openly discussed. These
discussions will be enabled by the transparency of the participating organizations and participation should include a commitment to transparency.

5. The forum would also interact with or create specific issue initiatives to produce analyses or recommendations on different Internet-related issues. The initiatives should include all the stakeholders involved in the issue and would make recommendations to the forum and to the stakeholders”.

**Analysis**: Originally based on para 57,58,59,60 & 61 of WGIG report 2005. Eliminates the necessity of any specific oversight organisation and empowers ICANN GAC to deal with specific government issues. Creation of Global forum for coordination with different stakeholders & produce analysis and recommendations on emerging issues.

**5.2.3 Model – III³**

1. “For policy issues involving national interests, given that no single Government should have a pre-eminent role in relation to international Internet governance, an International Internet Council (IIC) could fulfil the corresponding functions, especially in relation to ICANN/IANA competencies.

2. In addition, its functions might include international public policy issues relating to Internet resource management and international public policy issues that do not fall within the scope of other existing intergovernmental organizations.

3. For those issues, the governmental component of the IIC will take a leading role, with the private sector and civil society providing advice.
4. Equally, the IIC could perform a fostering role for certain developmental issues on the broader Internet agenda.

5. The new body could make the Governmental Advisory Committee (GAC) redundant.

6. This internationalization should be accompanied by an adequate host-country agreement for ICANN”.

Analysis: Originally based on para 62,63,64,65,66 & 67 of WGIG report 2005.pre-assumes that no single government have a prominent role in relation to international internet governance. Recommends formation of International internet council (IIC) can solve issues related to public policy and internet resource management.

5.2.4 Model – IV

1. “This model brings together and addresses three interrelated areas of Internet policy governance, oversight and global coordination, and proposes structures to address the following challenges:

   • Public policy development and decision-making on international Internet-related public policy issues led by Governments.
   • Oversight over the body responsible at the global level for the technical and operational functioning of the Internet led by the private sector.
   • Global coordination of the development of the Internet through dialogue between Governments, the private sector and civil society on an equal footing.
2. The Global Internet Policy Council (GIPC)

• “Responsible for international Internet-related public policy issues”, and contribute public policy perspectives to Internet-related technical standard-setting.
• Government-led mechanism that encompasses issues addressed by existing intergovernmental organizations and other public policy issues that currently do not have a natural home or cut across several international or intergovernmental bodies.
• Participation by the private sector and civil society, both in an observer capacity.

3. World Internet Corporation for Assigned Names and Numbers (WICANN)

• Responsible for the “development of the Internet in both technical and economic fields” (a role similar to that performed by ICANN). Private-sector-led body made up of a reformed internationalized ICANN linked to the United Nations.
• In this body, Governments will have two distinct and separate functions.
• The oversight function over the body responsible, at the global level, for the technical and operational functioning of Internet (ICANN). This is the role currently performed by the Department of Commerce of the United States Government. This role would be played by an Oversight Committee appointed by and reporting to the intergovernmental body (the Global Internet Policy Council). The oversight function would not be of an operational or management nature.
• The second function is advisory, as currently played by the ICANN Governmental Advisory Committee (GAC).
• Participation of Governments and civil society in an observer/advisory capacity.

• WICANN would have a host-country agreement.

4. The Global Internet Governance Forum (GIGF)

• Responsible for “facilitating coordination (and discussion) of Internet-related public policy issues”.

• Participation on equal footing by Governments, the private sector and civil society”.

Analysis: Originally based on para 68, 69, 70 & 71 of WGIG report 2005. Proposes formation of Global internet policy council (GIPC) for public perspectives to internet related technical standards. Formation of World Internet Corporation for assigned names and numbers (WICANN), which is constituted by private sector led body, for oversight of both technical and economic fields. Give rise to global Internet governance forum (GIGF) and facilitate equal participation of governments, private sector and civil society.

5.3 Models by Mr. Lawrence B. Solum

L.B. Solum of University of Illinois in his research paper titled ‘Models of Internet Governance’ proposed the following five model based on three central ideas: ‘(a) the idea that the Internet is constituted by its architecture or code; (b) the idea that the problems of Internet regulation can be analysed by using the conventional tools of policy analysis, including but not limited to: (i) normative theory, (ii) economics, and (iii) social choice theory; and (c) the idea that the logical space for discussing Internet
governance can be captured via a set of ‘models’ or ideal types for Internet regulation.’

5.3.1 Model-V ‘Cyberspace & Spontaneous Ordering’

Description
This model is based on the theme that the Internet has self-governing sphere having individual liberty which is beyond the reach of government control. This model strongly associates the thinking about the cyberspace as, a separate area outside of physical space and the reach of either national governments or market forces. David Post and David Johnson had a large amount of contribution in designing and proposing this model, some of their well known approaches taken in the last decade are mentioned here.6

1. Issues related to jurisdiction and boundaries raised by cross–border electronic communications could be resolved by one simple principle “conceiving of Cyberspace as a distinct ‘place’ for purposes of legal analysis by recognizing a legally significant border between Cyberspace and the ‘real world’”. Using this new approach, we would no longer ask the unanswerable question ‘where’ in the geographical world a Net-based transaction occurred.

2. Governments cannot stop electronic communications from coming across their borders, even if they want to do so. Nor can they credibly claim a right to regulate the Net based on supposed local harms caused by activities that originate outside their borders and that travel electronically to many different nations.

3. One nation’s legal institutions should not control rule-making for the entire Net.
4. Established authorities will continue to claim that they must analyse and regulate the new online phenomena in terms of some physical locations.

5. The rise of responsible law-making institutions within Cyberspace, however, will think about heavily against arguments that describe the Net as ‘lawless’ and thus connect regulation of online trade to physical jurisdictions.

6. For online activities that minimally affect the fundamental interests of leaders, the self-regulating structures of Cyberspace seem better suited to dealing with the Net’s legal issues.

When Johnson and Post were writing in the mid-1990s, this vision of cyberspace as a separate area beyond the reach of national governments may have seemed believable. But now it is difficult to consider of cyberspace as a sort of ‘independent country’. Governments and large multinational firms now have visible presences in cyberspace.

On the other hand, there is a root of important truth in the model of cyberspace and spontaneous ordering. The architecture of the Internet is opposed to purely national control. Because the Internet is a global network of networks capable of transmitting any information that can be digitised, it would be costly for any national government to attempt to monitor all of the content on the Internet inside its national boundaries. Monitoring telephone calls is much easier as compared to interception of Data on the Internet, because data are broken into packets and they take different routes
to reach their final destination. In case if the government authority tries’s to block one computer or server, proxy servers reroute the data towards destination.

Regulation of internet and its services is very expensive because content that once could be restricted is easily available now. Up to certain extent China is successful in restricting access to some content but still sophisticated Internet users in China are able to avoid, at least in part, the so-called ‘great firewall’.

5.3.2 Model– VI ‘Transnational Institutions & International Organisations’

This model is based on the concept that Internet governance essentially go beyond the limits of national borders and hence the most appropriate institutions are transnational quasi-private (essentially public: although under private ownership or control) cooperatives or international organizations based on treaty arrangements between national governments.

Closely related to the idea that cyberspace is an independent empire outside the control of national governments is the belief that the Internet should be governed by special transnational institutions that are outside the control of national governments and instead answer to the ‘Internet community’ or the ‘community of network engineers’.

Parallel to this model is an opposing idea that accepts the principle that the Internet is essentially international in character, but rejects the principle that it should be outside the control of national governments. This opposing view would replace special transnational institutions—like ICANN or the IETF—with international organizations on the model of the International
Telecommunications Union (ITU) or the World Intellectual Property Organization (WIPO).

Even though we are examining these two ideas in parallel, they represent opposing tendencies and hence we are discussing two model not one. The central idea that both models share is that Internet governance requires institutional structures that cross national boundaries. The core difference between the two models is over the role of national governments. As a result Internet governance institutions have followed the model of special transnational institutions, even if there has been large stress to move towards international organizations.

This model has never established substantial authority to engage in Internet governance. The ITU and other UN co-organisations are more involved in policy issues like, Internationalized Domain Names (which allow use of non-Roman character sets) have received attention from the UN Asia-Pacific Development Information Programme. But till now the role of international organizations in Internet governance has been limited to participation, and has not received recognized influence.

5.3.3 Model- VII Model of ‘Code & Internet Architecture’
Code thesis is the short name by which this model of code and Internet architecture is known .This model states, that the nature of Internet or cyberspace is determined by the code i.e. the basic software and hardware that implements the Internet. This is the core differentiating point between this model ‘VII’ and earlier model ‘V’. The previous model ‘V’ at least in simple forms assumes that cyberspace has an inbuilt nature, and that regulation of the Internet must respond to that nature. The dissimilarity
between the two models is known by their different approaches towards the question that can national governments regulate the Internet independently.

This model is of the say that code is the prime regulator in cyberspace. Larry Lessig in his work ‘the Code is Law’ points that software or code has regulative effects on human behaviour. In this sense, Internet architecture is like the architecture of buildings and cities. Just as the architecture of a buildings enables and encourages humans to move and assemble in certain ways, so the architecture of the Internet enables some activities by users and regulators.⁷

Larry Lessig has further argued that the primary characteristic of the Internet architecture that enables innovation is the end-to-end principle. The end-to-end principle says to keep intelligence in a network at the ends or in the applications, leaving the network itself to be relative simple. The network simply forwards or routes the data packets and does not and cannot by architecture discriminate or differentiate traffic generated by different applications. The software at the transport and Internet protocol layers simply does not include code that would allow the Internet to associate data packets with application file types.

Internet is totally unaware regarding the data packets that are flowing through it, be it a webpage, a social science article an email message, or an MP3 file. As a result, the Internet cannot manage the routing of packets so that they all arrive at a destination computer at the same time. Majority of packets may arrive at the first instant and the remaining moving through a different route on Internet, might arrive later. Here the internet is not smart enough to judge the priority among academic articles of high priority and MP3 files for students as low priority.
This characteristic is often referred to as transparent and non-discriminatory nature of the Internet, leading to the explosion of innovation and creativity on the Internet. In view of the fact that the network is unbiased or clear to applications and the intelligence is applied at the ends by the applications, creators/developers are free to prove their creative and innovative skills. As the internet is transparent, investment is required to be done at the application layer only, saving as economically from investing at the lower layers, which is more costly and difficult too. This high transparency and low adoption costs leads to another important concept known as networking effects.

This model is also understood in a different manner which thoroughly looks into and strengthens the code thesis and the end-to-end principle. Transparency is default characteristic of the layered architecture of the Internet. That is, it is layers that are the key, central characteristic of the Internet architecture. The end-to-end principle evolved from the layers model as a concept of hidden ideas originally found in the layers model.

The six layers that make up the Internet and considered as a system of communication are as follows:

a) The Content Layer: the symbols and images that are communicated.

b) The Application Layer: the programs that use the Internet (e.g. the Web).

c) The Transport Layer: TCP, which breaks the data into packets.
d) The Internet Protocol Layer: IP, which handles the flow of data over the network.
e) The Link Layer: the interface between users’ computers and the physical layer.
f) The Physical Layer: the copper wire, optical cable, satellite inks, etc.

The fundamental goal of the initial Internet architecture was to create a network of networks by interconnecting various computer network systems already in existence at the time. For achieving this goal, TCP/IP was planned to be purely software protocol, independent of any particular computer and network hardware. That’s why TCP/IP is ‘pure code’ of the Internet that determines the architecture of the Internet. This model assumes TCP/IP as the most important invention for Internet governance.

5.3.4 Model – VIII ‘National Governments & Law’

This model is based on the proposal that the importance of the Internet related activities makes it necessary to regulate it on the same pattern and equal importance as other human activities are regulated. This statement can be defended by quoting some examples like:8

a) Publication on the web is subject to laws on defamation.
b) Contracts made on the web are enforceable.
c) Internet fraud is subject to criminal sanction.
d) Peer-to-peer sharing of files with copyrighted materials subjects users to civil and/or criminal liability.
Efforts to subject Internet architecture to national regulation and attempt to censor open access content are the two difficult issues concerning internet regulation. These two issues are sometimes related, as the regulation of architecture may be a means to the regulation of content. In both situations, national regulation creates sizeable costs that warn against the expansion of national law.

The first situation where care is needed is the direct legal regulation of Internet architecture. In this direction no national government has ever made a sincere attempt change the fundamental architecture of the Internet’s code, because such attempt would be in vain. And any modifications at the national level would result in the fragmentation of the Internet. Only China has few methods that aim at creating the functional equivalent of fundamental architectural changes.

The second situation of concern is the legal regulation of access to content by end users. Regulating Internet content at the national level is costly, because blocked websites may contain some material that would be beneficial or desirable to another set of people and also might be of little concern even to the government. Such regulation defeats the theme of transparency of the Internet notably by preventing access to popular Internet services.

National regulation of the Internet may prove successful in the situation were all of the parties to the regulated activity are within the physical territory of a particular country. But national regulation of the Internet is expensive and unsuccessful when the object of regulation is either the architecture of the Internet or content that originates outside of national
boundaries. Thus, the said model cannot provide a complete solution to the problems of Internet governance.

5.3.5 Model – IX ‘Market & Economics’

This model attempts to redescribe the fundamental phenomena in economic terms, as markets for products and services. The economic approach to Internet governance can be illustrated by returning to ICANN and its regulation of the Domain Name System (DNS). At the heart of the DNS is the root directory the part of the system that allows the creation and utilization of top-level domains, like .com, .edu, and .org.

In the economic sense we may consider root service in short supply. The term short supply can be used in a different sense, which we call the engineering sense. It is important to contrast and compare these two different senses of short supply. Economic insufficiency arises whenever something is costly, even if it is abundant.

A network engineer might say that there is no shortage of capacity on an Ethernet network if the engineer has planned for sufficient resources (optical fibre etc.) to meet probable demand into the expected future. The same engineer might say that storage space on the email server is limited, if the server is reaching its physical limit. To the economist, both resources are limited.

In economic sense the root is a limited resource for two separate and independent reasons. First, the root server system itself is economically scarce. Second, the name space is economically limited. If either of these
assumptions is true, then root service is a limited resource from the economic point of view.

5.4 Model -X Multi-stakeholder governance Model

This model is based on the concept of multi-stakeholderism, and stakeholder refers to ‘an individual, group, or organization that has a direct or indirect interest or stake in a particular organization, these may be businesses, civil society, governments, research institutions, and non-government organizations’. It encourages the involvement of industry, civil society, technical and academic experts, and governments from around the globe, multi-stakeholder processes result in broader and more creative problem solving than traditional governmental approaches. In this model settings are open to anyone coming in and fully participating. It assumes that participants will bring reasonable approximations of total perspectives into the discussion.

“There are many possible types of multi-stakeholder governance, produced by variation on at least two dimensions: (1) the types of actors involved; and (2) the nature of authority relations between actors. In order to qualify as multi-stakeholder governance, we argue that at least two classes of actors must be involved, if not directly in carrying out a coordinating function, indirectly in regulating or technologically constraining such a function. In specifying classes of actors, we follow general conventions in international relations theory; on this basis, we suggest that there are four basic classes. States, formal intergovernmental organizations (IGOs) and firms are relatively straightforward. The fourth class of actors we identify includes nongovernmental organizations (NGOs), civil society groups or
movements and individuals acting on their own behalf. While this admittedly combines a wide variety of actors, we opted for this specification on the basis of avoiding an unmanageably complicated typology. Further, these kinds of actors are often (though not exclusively) involved in what have been called transnational advocacy networks (TANs), distinguished in part by the importance of principled ideas in motivating their behaviour”.

Example of governance involving multiple type of stakeholders is ICANN “which involves participants from corporations, civil society and governments. Even this relatively clear example of multi-stakeholder governance has been subject to criticisms ranging from insufficient civil society participation; insufficient government authority; too much government oversight; questions about legitimacy; and concerns about its contractual relationship with the United States government. The IETF is, in many ways, more open, but less formally multi-stakeholder than ICANN. In theory, anyone is open to participate in standards development in an individual capacity but, in practice, these individuals often represent the interests of a corporation, government, or less frequently civil society”.

The multi-stakeholder model is a key to ‘diverse collection of stakeholders from around the world working together to innovate, govern, and expand access to this powerful tool. Through local, regional and global dialogue and action, more stakeholders are involved and have ideas for how to shape the future of the multi-stakeholder model’.

Internet society launched a multi-phased survey of over 300 individuals from 53 countries, seeking to understand better how the internet community is viewing multi-stakeholder governance. On the basis of
results of the survey, following set of recommendations for a positive future of internet governance were put forward by the respondents.

a) “the establishment of a better democratic base and model for multi-stakeholder processes. Accountability of representatives and transparency of the processes are also necessary.
b) the improvement of decision-making mechanisms. Outcomes should be made clearer, for example with the adoption of recommendations or best practices;
c) the focus should switch from governance institutions to individual users. Individual users should feel that their concerns and interests are represented in Internet governance processes. Protection of human rights and protection of Internet users should become the main objective of Internet governance;
d) the improvement of multi-stakeholder preparatory processes - these should become more open;
e) the enhancement of participation. Participants from civil society and developing countries face serious challenges when trying to participate in global processes. Funding is a key element to address the participation gap, but account should also be taken of cultural and language barriers;
f) people should be informed and educated about the importance of Internet governance discussions. This could further allow the identification of common global interests for all users”.11
5.5 Indian Proposal at 66th session of United Nations at Geneva

Member of Parliament, Mr Dushyant Singh represented India at the 66th Session on United Nations general assembly, in year 2011 at Geneva. Mr Singh referred United Nations document A/66/77, which is related to agenda 16 of the general assembly, under the theme ‘Information and Communication Technologies for Development’. We extract and represent few important points related to ‘Internet Governance’ as they are, from the lengthy statement.

“India proposes the establishment of a new institutional mechanism in the United Nations for global internet related policies, to be called the United Nations Committee for Internet-Related Policies (CIRP). The intent behind proposing a multilateral and multi-stakeholder mechanism is not to "control the internet” or allow Governments to have the last word in regulating the internet, but to make sure that the Internet is governed not unilaterally, but in an open, democratic, inclusive and participatory manner, with the participation of all stakeholders, so as to evolve universally acceptable, and globally harmonized policies in important areas and pave the way for a credible, constantly evolving, stable and well-functioning Internet that plays its due role in improving the quality of peoples lives everywhere”.

The CIRP shall be responsible to undertake the following tasks:

i. "Develop and establish international public policies with a view to ensuring coordination and coherence in cross-cutting Internet-related global issues;"

ii. Coordinate and oversee the bodies responsible for technical and operational functioning of the Internet, including global standards setting;
iii. Facilitate negotiation of treaties, conventions and agreements on Internet-related public policies;
iv. Address developmental issues related to the internet;
v. Promote the promotion and protection of all human rights, namely, civil, political, social, economic and cultural rights, including the Right to Development;
vi. Undertake arbitration and dispute resolution, where necessary; and,
vii. Crisis management in relation to the Internet”.

In order to actualize this proposal, India calls for the formation of an open-ended working group under the Commission on Science and Technology for Development, for drawing up the detailed terms of reference for CIRP, with a view to activating it within the next 18 months.

CIRP proposed by India shall have the following features.

i) Membership: “The CIRP will consist of 50 Member States of the United Nations, chosen/elected on the basis of equitable geographical representation. It will provide for equitable representation of all UN Member States, in accordance with established UN principles and practices.

ii) Reporting: The CIRP will report directly to the UN General Assembly annually, on its meetings and present recommendations in the areas of policy and implementation for consideration, adoption and dissemination to all relevant inter-governmental bodies and international organizations.
iii) Research Wing: A well-resourced Research Wing attached to the CIRP to provide ready and comprehensive background material, analysis and inputs to the CIRP, as required.

iv) Links with the IGF: IGF will provide meaningful policy inputs to the CIRP and will ensure a stronger and more effective link between the CIRP and the IGF.

v) Budget: Like other UN bodies, the CIRP should be supported by the regular budget of the United Nations”.

5.6 COAI proposal at NETmundial Brazil

Cellular Operators Association of India (COAI) is a non-governmental society, constituted in 1995. It is the largest industry association and serves nearly 800 million Indian mobile subscribers. COAI’s vision statement is ‘that Internet governance should be inclusive, people centered and development oriented. Any policy framework for the Internet must support openness and connectivity’. At ‘NETmundial-Global Multi-stakeholder Meeting on the Future of Internet Governance’ Vikram Tiwathia of COAI presented a draft of some of the basic Internet Governance Principles, which we quote and summarise here.

a) “Recognize and develop a multi-stakeholder approach to policy development: Internet governance policy has to be formed through an open, transparent and inclusive process.

b) Support and promote an open and connected Internet: any policy framework for the Internet must support openness and connectivity.
c) Promote investment in critical infrastructure: India must invest in developing the required broadband infrastructure on a national scale, public policy should provide appropriate incentives to the private sector to provide last mile connectivity to the end users, especially in rural areas.

d) Promote and protect the free flow of information: The government must adopt a principles based approach to surveillance, especially ensuring an independent judicial oversight mechanism for all surveillance activities.

e) Promote creation of multilingual content: This will empower people from all states in India to access information, goods and services of their choice.

f) Limit intermediary liability: Laws imposing appropriate limitations on intermediary liability particularly in relation to third party content should be fair and reasonable and provide for expression of free speech within constitutionally permissible limits, and allow intermediaries to provide services without undue harassment, so that the Internet remains a level playing field that rewards innovation and entrepreneurship”.14
References:

2. WGIG report available at p 14
   http://www.wgig.org/docs/WGIGREPORT.pdf
3. Working Group on Internet Governance, p 14, June 2005
4. Château de Bossey, WGIG report, 2005 p15