「ICTと気候変動に関するフォーカスグループ」（FG）の結果

1　FGの検討結果

・国際電気通信連合の標準化部門（ITU-T）では、ICTが気候変動を抑制する効果を客観的に評価する手法等をテーマとする、「ICTと気候変動に関するフォーカスグループ」（FG）を設置（ITU-Tマルコム・ジョンソン局長をはじめ、各国電気通信主管庁や標準化機関、電気通信事業者、メーカー等が参加）
・昨年９月に第１回会合、１１月に第２回会合をITU本部で開催し、第３回会合（最終会合）を３月２４日（火）～２７（金）まで広島市で開催
・最終会合では、報告書を作成（本テーマは国際機関としては初の報告書）し、国際標準化に向けた方向性を提示。

報告書の概要

●気候変動に関する専門用語、概念等についての各種定義の検討
（例：” direct”⇒　ICT自体のライフサイクルを通した温室効果ガス削減量　等）

●ICTと気候変動に関するこれまでの取組状況及び今後必要となる取組についての分析
（例：ICT分野におけるCO_2排出量及びCO_2排出削減効果の予測、ICTによる更なるCO_2排出削減の方策　等）

●ICT機器及びICT利活用による他セクターの消費エネルギー削減量の評価手法の検討
（例：電話会議システム等のICTの利用や高電圧直流給電システム利用時等のCO_2削減量の評価手法　等）

●CO_2削減に関するICT技術・利活用事例や取組を促進させるためのチェックリスト等の作成
（例：ICTシステムを利用した場合の物（紙等）の消費量等をチェックするためのチェックリスト　等）

2　今後の予定

H21.4.28～30

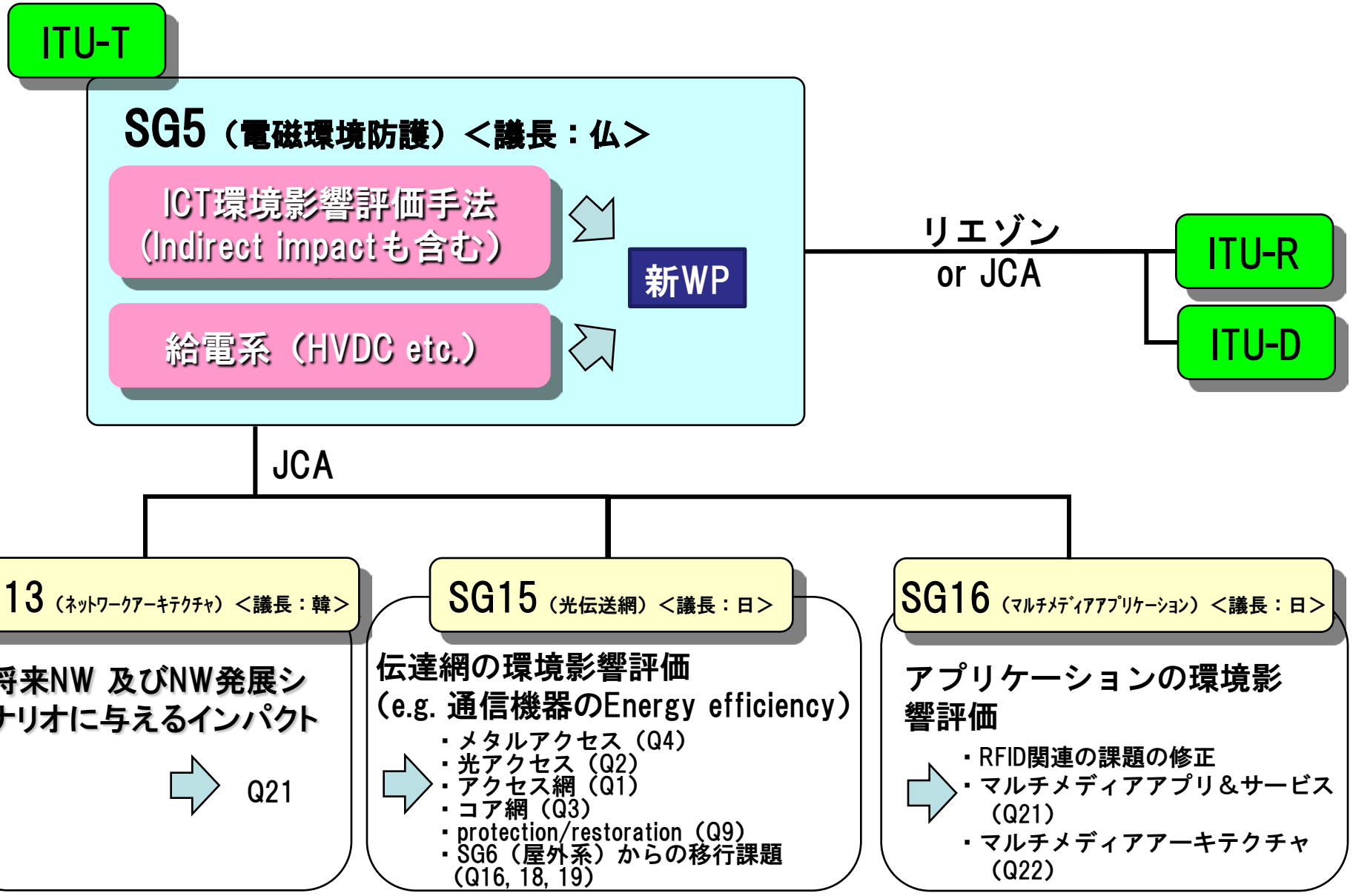
○電気通信標準化アドバイザリーグループ（TSAG）会合
・平成２１年４月２８日～３０日（ジュネーブ・ITU本部）で実施
・勧告化等の検討を行うためのITU-Tにおける研究委員会（SG）等の体制を議論し、決定する。

H21.5～

○研究委員会（SG）会合
・TSAGで決定された体制を元に、フォーカスグループの検討結果（報告書）について、勧告化等に向けた技術的な検討を実施（２～３年内に順次勧告化）

● ITUとして、ICT分野の削減目標の設定及びジョンソンITU-T局長がCOP15で「ICTと気候変動」について発表予定

ICTと気候変動に関して想定される今後の検討体制



資料２－作－２６－ＴＳＡＧ－寄概－日本(1)

（情報通信技術分科会　ITU-T部会　委員会　様式４）

ＩＴＵ－Ｔ会合への提出寄書概要

（会合名：ＩＴＵ－Ｔ　TSAG会合）

提出元：NTT
（原案作成元）（注）

（注）原案作成元と提出元が異なる場合は、原案作成元を括弧書きで併せて記載すること。

寄　書　名	原　題	Proposed list of Questions for the standardization of ICTs and Climate Change		
	和　訳	ICTと気候変動の標準化のための課題の提案リスト		
開催期間		2009年4月28日～2009年4月30日	開催地	スイス・ジュネーブ

課題番号	課題名	
		ICTs&CC

提出寄書の意図・目的：■ A:問題提起のための寄書　□B:新規勧告草案提示の寄書
□C:既存勧告案に対する審議進捗のための寄書

我が国としての意志を明示することが必要又は有効なもの。

〇提出寄書の意図・目的

「ICTと気候変動に関するフォーカスグループ」（FG）のDeliverablesでの検討結果に即し、今後のITU-TにおけるICTと気候変動の議論のために、当該検討結果から得られる「課題」を整理し提案するもの。

寄書の内容：

FGの報告書のDeliverables（検討課題）の結果に基づき、気候変動問題に対する緊急性と重要性に鑑み、勧告草案化を開始するため、以下の「課題」を今後の標準化の検討項目として整理し、我が国から提案するもの。（但し日本提案は，以下の検討課題に制限することを意図するものではない．）

① ICTと気候変動に関連する勧告のフレームワーク
② 専門用語
③ ICTの環境影響の評価手法
④ 給電システム（高圧直流、高圧交流）
⑤ ネットワーク機器のリサイクル
⑥ 環境影響評価手法に基づいたNGNやFuture Networkのエコ化の要求条件
⑦ 環境モニタリング
⑧ 伝達網の環境影響評価
⑨ マルチメディアアプリケーションの環境影響評価

勧告に対する外国の状況：

FG第３回広島会合（３月）において、上記内容が概ね盛り込まれた課題整理表をTSB局長はじめ、各国（米、英、仏、韓　等）の参加者に議場外で見せている。各国からは概ね賛同を得ているところ。

他のＳＧ、他の機関との関連：

（ 注）寄書原文を提出すること。

INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2009-2012

TSAG – C XX – E

April 2009

English only

Original: English

Question(s):

TELECOMMUNICATION STANDARDIZATION ADVISORY GROUP

CONTRIBUTION XX

Source: Japan

Title: Proposed list of Questions for the standardization on ICTs and Climate Change

Abstract

This contribution proposes a suite of Questions under ITU-T SGs in accordance with the outcomes of the Focus Group on ICTs and Climate Change (FG-ICT&CC).

1. Introduction

The FG-ICT&CC successfully finished its work at its Hiroshima Meeting (24 – 27 March, 2009) under the agreed Terms of Reference (ToR). Extensive outcomes therein have been collected in the series of Deliverables such as D1 on “Definitions on ICTs and Climate Change”, D2 on “Gap Analysis”, D3 on “Methodology”, and D4 on” Direct and Indirect Impact on Standards”. Considering the importance and urgency of climate change issues, Japan believes that we should continue to work further on the issues and quickly develop the necessary Recommendations under ITU-T SGs, as appropriate. In the course of developing an agreement on the standardisation framework at this TSAG meeting, Japan proposes that ITU-T should begin by identifying necessary Questions that can be derived from Deliverables of the FG-ICT&CC.

2. Discussion

Recognizing that the deliverables from the FG can give reasoning to possible studies in the new standardisation framework, Japan identifies the following aspects to be considered.

Framework and Terminology:

The study on framework and terminology is the most fundamental for the further work on ICT&CC issues. To deal with a new study area or theme for standardisation purposes, it is important to have two “individual” Questions on framework and terminology. It is important to develop a framework Recommendation first, by examining D4, which will serve as an essential document to understand how the ITU-T tackles with ICT&CC. Whereas, terminology Recommendations, which will

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succeed the whole of D1, can provide a common vocabulary on ICT&CC issues with different stakeholders.

Methodology:
As the D3 clearly explains, the methodology to describe and estimate energy consumption saved through ICT utilization is one of the most important issues to be developed. The Common criteria and evaluation methods applicable to various use cases should be studied under the Question on methodology.

Power feeding system:
Section 4.1.4 of D3 stated the significance of a high voltage power feeding system to reduce the carbon footprint of ICTs themselves. High voltage power supply systems are considered to be one of the effective means to improve the energy efficiency of power feeding systems, which can be installed into data centres and other operators' premises.

Recycling:
Recycling ICT equipment is an important solution to mitigate so-called e-waste problems. Section 5.5 of D4 provides *Checklists* for helping the recycling of ICTs equipment. Furthermore, the UK's contribution, FG ICT&CC-C-75, quoted the Swiss Federal Laboratories for Materials Testing and Research's (EMPA's) report regarding the severity of the e-waste problem particularly in developing countries.

Future network:
Looking at ICT&CC's relationship with Next Generation Networking (NGN), Section 4.1.1 of D3 refers to its carbon impact: "The migration to NGN is expected to reduce power consumption by approximately 30-40 per cent by introducing Internet Protocol transmission, as compared with the current public switched telephone network (PSTN)." Section 7.1 of D4 also states "NGN is expected to bring about greater energy efficiency than legacy networks. In turn, by improving the energy efficiency of Information and Communication Technologies (ICTs), NGN can potentially make a significant contribution in the battle against global warming." Section 2.5.1.2 of D2 provides gap analysis assuming future network. Thus, the environmental impact of NGN and Future Networks can be another important item to be studied. Note that any study should be based on the best use of emerging methodology to evaluate the environmental impact of ICTs.

Monitoring:
Section 7.2.1 of D4 points out the significance of a Ubiquitous Sensor Network (USN) as it can help monitor the status or degree of climate change effectively. The capability of monitoring should be incorporated into the standardisation framework of ICTs and Climate Change.

Transport network:
A transport network itself consumes tremendous amount of energy in the worldwide sense. It is therefore quite reasonable that ITU-T will promote energy saving in transport networks. Section 2.1 of D2 refers to such an objective, and Section 3.1 of D1 and Section 3.1 of D3 provide the outlines of evaluation methodology for the environmental impact of transport networks. Because energy savings are urgently needed, the environmental aspect of transport networks should be studied by using the evaluation methodology.

Multimedia applications:
As described in D2, D3 and D4, there are plenty of multimedia applications that have the potential of environmental impacts. The environmental aspect of multimedia applications is considered, for instance, in Section 2.5.1.2 of D2 from the viewpoint of gap analysis. Section 7.1 of D4 also states "Improving IP systems, reducing energy requirements of VoIP services and multimedia applications while maintaining the best quality of Service and Quality of perception for End user", whereas

資料２－作－２６－ＴＳＡＧ－寄本－日本(1)

Section 7.2 of D4 refers to possibly mitigating climate change by using USN applications. Also note that new features of "Tag-based Identification Applications and Services" are detailed in Section 7.4 of D4. Section 3.1.3 and Section 3.2.3 of D3 refer to evaluating the environmental impact of these services and applications.

3. Proposal

Considering the above aspects described in the deliverables from the FG, Japan proposes the following items in the Annex of this contribution to be recognized as the questions on ICT&CC issues and studied in ITU-T Study Groups. Please note that Japan does not intend to limit the study items as shown in the Annex.

資料２－作－２６－ＴＳＡＧ－寄本－日本(1)

Annex – Possible New Questions for Standardizing ICT&CC

Items (Questions)	Related Deliverables (Section)	Rationale
1. Framework for ICT&CC-related Recommendations	D4	The Deliverables from the FG-ICT&CC will be revisited by relevant SGs to develop new ITU-T Recommendations. An adequate framework is needed in order to allow us to understand the relationship between possible new Recommendations and to manage the status of their progress in an integrated manner. A framework Recommendation will help achieve these purposes.
2. Terminology	D1	By utilising the Deliverable on the terminology definition, an ITU-T Recommendation on the terminologies and definitions should be developed, as it will be an essential tool to better understand ICT&CC-related Recommendations.
3. Methodology for Environmental Impact Assessment of ICT (New activities not covered in existing SG questions)	D3 (In particular, chapter 3) Evaluation methodology has been proposed on the basis of LCA for fixed and mobile networks and ICT applications, such as teleconferences.	The following issues will be essential to make possible a new Recommendation for Methodology: 1. General principles 2. Criteria of evaluating ICT impact 3. System boundaries and functional units 4. Environmental load intensity, i.e., CO2 emission intensity 5. Definition of possible target for CO2 emission reduction 6. Handbook
4. Power Feeding System (HVDC, HVAC)	D3 (Section 4.1.4)	The following issues will be essential to make possible a new Recommendation for High Voltage Power Feeding Systems: 1. Specifications of the HV power feeding system (Nominal voltage, range, etc) 2. Safety criteria and requirements for service personnel and equipment 3. System configuration and specification 4. Methods for evaluating energy efficiency
5. Recycling of NW equipments/ appliances/ terminals	D4 (Section 5.5 etc.)	The outcome from the FG recognises new works under existing Questions are necessary in order to mitigate e-waste and to reduce potential CO2 emissions that will be made without recycling.

資料２－作－２６－ＴＳＡＧ－寄本－日本(1)

6. Requirements for greener NGN and Future Networks based on the environmental impact assessment of ICT	D2 (Section 2.5.1.2) D3 (Section 4.1.1) D4 (Section 7.1)	The outcome from the FG recognises the new works under the existing Question are necessary in order to identify potential requirements for future networks and to show their positive impact or effect on climate change. 1. Requirements 2. Greener network migration 3. Potential impact of future network
7. Environmental monitoring/	D4 (Section 7.2.1)	Following the development of a new Recommendation on measurement methods, which have been studied in FG-ICT&CC, a need to standardise efficient methods for environment monitoring will be envisaged to minimise their environmental impacts using a unified monitoring basis and method.
8. Environmental aspect of transport networks based on the environmental impact assessment of ICT (e.g. energy efficiency of NE's)	D1 (Section 3.1) D2 (Section 2.1) D3 (Section 3.1)	The outcome from the FG recognises the necessity of new works under existing Questions to seek for possible means to save energy of ICT equipment at least as far as ITU-T is concerned. Further requests may be made from the perspective of ITU-R.
9. Environmental aspect of multimedia applications based on the environmental impact assessment of ICT	D2 (Section 2.5.1.2) D3 (Section 3.1.3 and 3.2.3) D4 (Section 7.1, 7.2)	The outcome from FG recognises the necessity of new works under existing Questions to study the environmental impact of: 1. IP systems 2. USN applications 3. Tag-based identification applications and services 4. Other applications and services

資料２－作－２６－ＴＳＡＧ－寄概－日本(2)

（情報通信技術分科会　ITU-T部会　委員会　様式４）

ＩＴＵ－Ｔ会合への提出寄書概要

（会合名：ＩＴＵ－Ｔ　TSAG会合）

提出元：NTT
（原案作成元）（注）

（注）原案作成元と提出元が異なる場合は、原案作成元を括弧書きで併せて記載すること。

寄　書　名	原　題	Proposed study structure for the standardization on ICTs and Climate Change		
	和　訳	ITU-Tと気候変動に関わる課題の検討体制		
開催期間		2009年4月28日～2009年4月30日	開催地	スイス・ジュネーブ

課題番号	課題名	
		ICTs&CC

提出寄書の意図・目的：■ A:問題提起のための寄書　□B:新規勧告草案提示の寄書
□C:既存勧告案に対する審議進捗のための寄書

我が国としての意志を明示することが必要又は有効なもの。

〇提出寄書の意図・目的

別途我が国から提出の「ICTと気候変動の標準化のための課題の提案リスト」の寄与文書に基づき、同寄書に記載された研究課題に基づいて、ITU-Tとしての検討体制、及び、WTSA決議2のSG5に係る記述の変更を提案するものである。

寄書の内容：

FGではICT&CCに関する4つのdeliverableを出力した。勧告草案化するために、できるだけ速やかにかつ協調的に研究を開始することが重要。本寄書では、我が国からの別の寄与文書「ICTと気候変動の標準化のための課題の提案リスト」（以下、別寄書という。）の内容に基づき、当該研究課題の割振案と検討を効率的に進める体制について提案を行う。

その基本的な考え方は次のとおり。

（2.1項）

(1) 既存SGに密接に関係する課題は当該SGに研究を割当て、deliverableに基づいて勧告草案に向けた議論を早急に開始する。

(2) 既存のSGでカバーできない新たな研究課題については、新しいひとつのWPで研究されるべき。また、新しい課題は参加者の利便からも複数のSGs/WPsに分散すべきではない。-

(3) WTSA-08のSG再編の結果に基づき、新SGを新設するのではなく、既存SGの中で最も環境の課題に密接なSGを拡大発展することで構成する。また、（2）項で述べた新WPについては、環境に最も近い内容を扱うＳＧの下に設置する。

(4) 関連するSGが複数に亘るため、関連するSG間の連携機能を組織すべきであり、同時にITU-T,R及びDの環境側面の研究をリードするSGを決定する必要がある。

この考え方に基づき、

（2.2項）

(1) 既存の研究課題の範疇で検討できるものは既存のSGに割り当てる。具体的には次を提案する。

・環境影響評価手法に基づいたNGNやFuture Networkのエコ化の要求条件（⑥）（Q21/13）

・環境モニタリング（⑦）（Q5/13）

・伝達網の環境影響評価（⑧）（Q1/15,Q2/15,Q3/15,Q4/15,Q6/15,Q9,/15,Q19/15）

・マルチメディアアプリケーションの環境影響評価（⑨）（Q21/16,Q22/16）

(2) 新しい課題については、新しい「環境SG」に設置した新WPにて研究を行う。「新たな研究課題」については、次を提案する。

・ICTと気候変動のフレームワークに関連する勧告（①）

・専門用語（②）

・ICTの環境影響の評価手法（③）

・給電システム（高圧直流、高圧交流）（④）

(3) リサイクルの課題については、Q.19/SG15を拡張して、新「環境SG」の新WPの中に位置づける。

・ネットワーク機器のリサイクル（⑤）

注：〇付き数字は、別寄書の「課題」の番号によるもの。

（2.3項）　SG5を「環境SG」とすることについて:

WTSAでの議論を踏まえ、新SGの創設ではなく既存のSGを拡大して一般的な環境の課題を取り扱う「環境SG」とすべき。SGの候補としては、次の理由からSG５がよいと考える。

・ SG５は、ＥＭＣや雷防護など環境課題にも密接な課題を有する。

・ 新たな研究課題のうち、「給電システム」については、電源接地技術等との関連性もありSG５で研究することが適当。

・ 新課題を検討するための新SGの稼動を考慮すると、SG13、SG15、SG16などの大きなSGより、SG5を拡張してICTと環境に関する課題を検討する役割をもたせるのが適当。

（2.4項）JCAスキーム

複数の関連SGをJCAで連携させ、SG5が「環境SGとして」それをリードすべき。また、JCAの議長は、SG5の議長、もしくは新WPの議長が望ましい。

以上より、SG5に新WPを設立するとともに、リードSGをSG5としてJCAの仕組みを活用して関連する既存のSGと連携して研究を進める体制を提案し、WTSA決議2のSG5に係る記述の変更も合わせて提案するもの。

勧告に対する外国の状況：

FG第３回広島会合（３月）において、我が国の「SG5（電磁環境）をLead SGとし、その下にワーキングパーティー（WP）を設置し、関連ＳＧをＪＣＡ等で連携する検討体制」の考え方に対し、TSB局長はじめ、各国（米、英、仏、韓　等）の参加者から理解を得ているところ。

他のＳＧ、他の機関との関連：

（注）寄書原文を提出すること。

INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2009-2012

TSAG – C XX – E

April 2009

English only

Original: English

Question(s):

TELECOMMUNICATION STANDARDIZATION ADVISORY GROUP

CONTRIBUTION XX

Source: Japan

Title: Proposed study structure for the standardization of ICTs and climate change

Abstract

This contribution proposes a study structure in ITU-T, including the modified texts for the Study Group mandates of the Resolution 2 of WTSA-08, to promote the standardization of ICTs and climate change (ICT&CC) issues. This contribution is based on the outcomes from the Focus Group (FG-ICT&CC) and the Japanese companion contribution proposing new Questions to be studied in ITU-T SGs.

1. Introduction

The FG-ICT&CC recognized the important role that global standards can play in enabling the ICT industry to not only minimize its own carbon footprint but also to limit and reduce emissions in other sectors. The FG-ICT&CC has identified some new study items on ICT&CC and produced the first four deliverables on ICT&CC in the ITU-T. It is important to initiate study that will produce ITU-T Recommendations on ICT&CC in a very cooperative manner as quickly as possible. This contribution proposes a study structure for new study items on ICT&CC.

2. Discussion

2.1. Basic principles for study structuring on ICT environment in ITU-T

(1)Study items that are closely related to those covered by existing SGs should be allocated to the existing Questions in the existing SGs in order to initiate study and produce Recommendations as quickly as possible.

(2)A new group should be established to study new items to the ITU-T or those not covered by existing SGs, such as the study of general environmental issues. Such new study items should not be scattered over several SGs/WPs; having a single group for such new study items will

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facilitate smooth participations of the experts on ICT and environment and climate change that have been active in the FG.

(3) According to the discussion on the SG restructuring in WTSA-08, creating a new SG is not preferable; we should expand the mission scope of an existing SG in the ITU-T, which is the most closely related to target environmental issues, and incorporate the new group mentioned in the above (2).

(4)Since environmental study items extend to several SGs, a management function to coordinate the relevant study issues within the ITU including the ITU-R and the ITU-D should be implemented and a Lead SG should be appointed to lead the study issues on ICT environmental aspects in the ITU-T.

2.2. Study items related to ICT&CC and their assignments to SGs/WPs

The study items regarding ICT&CC are proposed in the Japanese companion contribution. The proposed study items should be assigned to SGs/WPs as follows.

(1) The study items closely related to those covered by existing SGs should be assigned to the existing questions under such existing SGs respectively.

Future network related study items → SG13 (but not limited to)

Ex. Q21/13: Future Networks

Monitoring related study items → SG13 (but not limited to)

Ex. Q5/13: Principles and functional architecture for NGN (including ubiquitous networking)

Transport network related study items → SG15 (but not limited to)

Ex. Access networks (Q.1/15), Optical access (Q.2/15), Core networks (Q.3/15), Metal access (Q.4/15), Protection/restoration (Q.9/15), Environmental protection of outside plants (Q.19/15)

Multimedia application related study items → SG16 (but not limited to)

Ex. RFID related Questions such as Q.21/16 (multimedia applications and services) and Q.22/16 (multimedia architecture)

(2) For the new study items related to ICT&CC that have not been studied by any SGs and the study items regarding general guidelines for the ICT&CC, a single new group should be established. New Questions should be defined to further the investigation into the new study items in the single new group.

New study items:

Methodology Methodologies to evaluate the environmental impact related to the deliverable on “Methodology”

High-voltage power feeding Power feeding systems with high voltage for the ICT infrastructure

General study items related to ICT&CC:

Terminology Terminology on ICT&CC

Framework Study item to list uniformly a set of study items related to ICT&CC that require recommendations, and to clarify relationships among them.

(3) The scope of Q19/15 in SG15, which currently deals with the environmental protection and safety aspects of outside plant, should be extended to include all communications devices and equipment. Then, the study items related to ***recycling*** should be assigned to the extended Q.19/15.

2.3. Re-definition of SG5 as "Environment SG"

Considering the discussion on the SG restructuring in WTSA-08, Japan is not in favor of establishing an additional new SG for ICT&CC issues in ITU-T. Japan believes that we should have an "Environment SG" to study the general environmental issues within the ITU by extending the scope of an existing SG. A new group mentioned in the above 2.1(2) should be a Working Party (WP) under the "Environment SG"; the extended Q.19/15 including ***recycling*** issues should be transferred to the "Environment SG" and belong to such a WP.

Japan also believes that SG5 is a good candidate for "Environment SG" with its appropriately expanded mandate. The current topics on electromagnetic compatibility (EMC) and Lightning Protection in SG5 are closely related to other environmental study items. The study items on ***High-voltage power feeding*** are related to SG5 topics such as bonding configurations and earthing of telecommunication systems in Q6/5. The balance of workloads among SGs should be also considered to define the "Environment SG". The expanded SG5 will be more appropriate than other larger SGs such as SG13, SG15 and SG16 to extend the existing work areas and to add the new important role on environmental issues.

2.4. JCA on ICT environment

Several related SGs on ICT&CC should be coordinated by a Joint Coordination Activity group (JCA), and new SG5 as "Environment SG" should take a role of the Lead SG on ICT environment in the ITU-T. Either the SG5 chairman or the new WP chairman will be nominated as the convenor of the JCA.

3. Proposals

Based on the above descriptions, this contribution proposes the following study structure and modifications to WTSA-08-Resolution 2 as a framework for proceeding with the work on new study items related to ICT&CC and environment.

3.1. Study structure

In order to further the investigation into the new study items related to ICT and climate change as well as environmental aspects in general, the mandate of SG5 should be extended and SG5 should be the Lead SG on ICT environment in the ITU-T; a new WP should be established within SG5 with the extension of its mandates.

- The new WP will discuss ***Methodologies*** for assessing the environmental impact of ICT (including indirect impact), ***Terminology***, ***Framework***, ***Energy efficiency of power feeding*** (DC, AC) issues, and **Recycling**.

A JCA structure should be applied, and the new study on ICT&CC issues will actively proceed in cooperation with existing related SGs (SG13, SG15, SG16, etc.).

3.2. Proposed modifications to WTSA-08-Resolution 2 concerning SG5 mandates

In order to proceed as described above, the wording in Annex A and Annex B related to SG5 in WTSA-08-Resolution 2 must be enhanced as follows. (The wording in italics is quoted from the existing text, and the added or modified parts are shown as underlined.)

1) Annex A (to Resolution 2) PART 1-GENERAL AREAS OF STUDY

Study Group 5 on Environment:
ICT environment aspects on electromagnetic effects and climate change

Study Group 5 is responsible for studying ICT environmental aspects on electromagnetic phenomena and climate change.

Responsible for studies relating to protection of telecommunication networks and equipment from interference and lightning.

Also responsible for studies related to electromagnetic compatibility (EMC), to safety and to health effects connected with electromagnetic fields produced by telecommunication installations and devices, including cellular phones.

Responsible for studies on the existing copper network outside plant and related indoor installations.

Responsible for studies on methodologies for evaluating the ICT effects on climate change, publishing guidelines for using ICTs in an Eco-Friendly Way, and energy efficiency of the power feeding system.

Also responsible for studying design methodologies to reduce environmental effects such as recycling and dematerialization related to ICT facilities, equipments, etc.

2) Annex B (to Resolution 2) Points of guidance to study groups for the development of the post-2008 work program

Study Group 5

Study Group 5 will develop Recommendations, Handbooks and other publications related to:

- *protection of telecommunication networks and equipment from interference and lightning;*
- *electromagnetic compatibility (EMC); and*
- *safety and health effects connected with electromagnetic fields produced by telecommunication installations and devices.*

Study Group 5 will also develop documents related to:

(1) Study of methodologies for calculating the amount of GHG emissions from ICTs, and the amount of reduction in the GHG emissions in other sectors as a result of using ICTs.

(2) Creation of guidelines for setting GHG reduction targets for the ICT field, clarification of definitions for these targets, and determining specific values.

(3) Studying of methodologies for power feeding that effectively reduce energy consumption and resource usage.

(4) Studying of design methodologies that reduce environmental effects for ICT

facilities and equipment such as recycling and dematerialization,

Note that the above text related to ICT and climate change must be studied by several SGs and Questions before being made an ITU-T recommendation. For this reason, it is necessary to compile a list of all recommendations related to ICTs and climate change together with their progress status, and to clarify all relationships among the recommendations. To facilitate this, a framework recommendation for positioning a set of related recommendations and showing the relationships among them will need to be created.

Study Group 5 will also take care of the aspects related to the deployment of new services on existing copper networks, such as co-existence of different services from different providers in the same cable and positioning of components (e.g. xDSL filters) inside the central office main distribution frame, including also the need to provide performance requirements of new copper pair cables designed to support a higher bandwidth.

This activity is strictly related to the continuation of studies on the local loop unbundling (LLU) with the scope to provide all the correct technical solutions needed to assure network integrity and interoperability, the easy use of equipment and access security in a context where operators can interact without affecting the quality of service defined by regulatory and administrative issues.
