ITTO BIENNIAL WORK PROGRAMME 2013-2014

ACTIVITY NO. 33 "MATCHING THE NEEDS OF FOREST INDUSTRY WITH THE INNOVATIONS, TECHNOLOGIES AND KNOW-HOW DEVELOPED THROUGH ITTO PROJECTS"

TECHNOLOGY TRANSFER SURVEY FINAL REPORT

BY

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ACRONYMS

CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement (French Agricultural Research Centre)
FRIM	Forest Research Institute Malaysia
GTZ	Gesellschaft für Technische Zusammenarbeit (German Development Cooperation)
INBAR	International Network for Bamboo and Rattan
IPT	Instituto de Pesquisas Tecnológicas do São Paulo
ITTO	International Tropical Timber Organization
LUS	Lesser Used Species
OIBT	Organisation Internacionale des Bois Tropicaux (ITTO in French)
OIMT	Organización Internacional de las Maderas Tropicales (ITTO in Spanish)
UK	United Kingdom (Great Britain)
UNIDO	United Nations International Development Organization
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

Note: The mention of commercial brands does not imply their endorsement by the consultant or ITTO.

EXECUTIVE SUMMARY

Activity 33 aims to match information developed by ITTO's past projects to the needs of its member countries. Specific objectives of this survey were to:

i) Identify the topics of highest regional priority for Producers, Consumers and Other
ii) Identify candidate countries and topics for the demonstration phase of Activity 33
iii) Strengthen ITTO's outreach.

i) Technical Topics of Highest Importance (1=*Not at all Important*; 5=*Very Important*)
Globally, priority topics were:

- *Support product development and marketing in value-added products (4.6 points)*
- *Make knowledge about lesser used species more available (4.5 points)*

Regionally, priority topics were:

- *Expand training in sustainable forest management and reduced impact logging,* (West& Central Africa, 4.7 points; Amazon, 4.4 points)
- *Expand applied research and development for juvenile wood from plantations,* (Central & Andean S. America-Mexico, 4.3 points).

ii) Candidate Topics and Countries for Demonstration Phase of Activity 33
So far, the following combinations have been selected for further consideration:

- *Support product development and marketing in value-added products,* (Peru, UK, others).
- *Expand applied research and development for juvenile wood from plantations,* (Central & Andean America-Mexico, others).
- *Make knowledge about lesser used species more available,* (West & Central Africa, Amazon, and Global).

iii) Strengthen ITTO's Outreach
The following major issues were identified from the responses:

1. Weak Connection of ITTO with Consumer Businesses.
The lack of participation by global *Consumer country* businesses is an important message. A majority of respondents, including Consumers, ranked the need to *Educate the public about sustainable forest management and certified forest products*, as *Important* or *Very Important* policy issues. Given that *Consumer country* businesses are closer to the public, their engagement will help the tropical forestry and forest products sector at large.

2. Lack of Training, Applied Research and Extension in Wood Utilization and Processing.
This is a missing link for satisfying the top technical needs selected by survey respondents. Among those are:
The need to ***Support product development and marketing in value-added products*** **and to** ***Expand applied research and development for juvenile wood from plantations*****.** Expanding tropical forest plantations is a pressing environmental, social and economic challenge in many developing countries. Appropriately done, forest plantation programs can help reduce forest degradation, rural poverty, emigration and global greenhouse gas emissions.

3. Opportunity for ITTO to Leverage More on Trade Associations and Local Training Entities.
In the tropical Americas and Western & Central Africa, **responders of the group Other were twice as likely to have participated in an ITTO project or activity compared to *Producers*.**

The formation of durable partnerships between local trade associations and training and development entities should be emphasized more as part of the design and exit strategies for ITTO projects and activities. While easier to start than to sustain, these partnerships could help introduce, adapt and develop locally effective mechanisms for expanding technology transfer and extension to producers, with emphasis on small and medium-sized enterprises.

Other actions suggested by respondents which ITTO may consider to improve its outreach are: appropriate technologies for smaller producers and landowners; promote associativity of producers; more effective use of videos and internet technology; user-friendly technical website to share information and past publications, a ***virtual library***; create partnerships for local or regional compilation and delivery of relevant content; field days, producer-to-producer exchanges, workshops, short-term practical training in successful projects, among others.

Next Steps Planned for Activity 33 are:
Phase 4. Design of dissemination instruments (February 2014)
During this phase, candidate topics listed above will be explored jointly with the stakeholders that showed the most interest. Demonstration activities will be crafted to meet the priority technical needs identified. Transfer diffusion mechanisms that can demonstrate extension approaches with high potential will be selected.

Phase 5. Final selection and start-up of demonstration activities (March 2014)
Contingent on ITTO funding availability, up to two activities will be selected competitively for implementation. Selection criteria will include: level of local and regional ownership and commitment by producers and support entities; shared local durable funding (Implementation starts by March 30, 2014).

Phase 6. Implementation (April 2014-)

RESUMEN EJECUTIVO

La Actividad 33 busca aplicar la información acumulada por los proyectos anteriores de OIMT, a las necesidades prioritarias de sus países miembros. Los objetivos específicos de esta encuesta eran:

i) Identificar los temas de mayor prioridad regional para Productores, Consumidores y Otros
ii) Identificar temas y países candidatos para la fase demostrativa de la Actividad 33
iii) Fortalecer la diseminación y extensión de la OIMT.

i) Temas Técnicos de Mayor Importancia (1= Ninguna Importancia; 5= Muy Importante)

Temas de Prioridad Global fueron:

- *Mejorar diseño y mercadeo para productos de mayor valor agregado (4.6 puntos)*
- *Facilitar acceso a información disponible sobre especies menos utilizadas (4.5 puntos)*

Temas de Prioridad Regional fueron:

- *Expandir entrenamiento en manejo sustentable y madereo de bajo impacto (Africa Oeste y Central, 4.7 puntos; Amazonas, 4.4 puntos)*
- *Expandir investigación aplicada y desarrollo en utilización de madera de plantaciones jóvenes (America Central y Andina, México, 4.3 puntos).*

ii) Temas y Países Candidatos para la Fase Demostrativa de la Actividad 33

Hasta ahora, las siguientes combinaciones han sido seleccionadas para mayor consideración:

- *Mejorar diseño y mercadeo para productos de mayor valor agregado (Perú, UK, otros)*
- *Expandir investigación aplicada y desarrollo en utilización de madera de plantaciones jóvenes (America Central y Andina, México)*
- *Facilitar acceso a información disponible sobre especies menos utilizadas (Africa Oeste y Central, Amazonas, Global).*

iii) Fortalecer la Diseminación y Extensión de OIMT

Las debilidades y oportunidades claves identificadas por las respuestas son:

1. **Débil Relación Entre OIMT y *Empresas Consumidoras*.**
   La baja respuesta a la encuesta por las empresas de los países consumidores miembros de OIMT es un mensaje importante. Especialmente si se considera que una mayoría de las respuestas, incluyendo las de *empresas consumidoras*, calificó como asunto de política sectorial *Importante* ó *Muy Importante,* la necesidad de *Educar a los consumidores sobre manejo forestal sustentable y productos certificados*. Como las *empresas consumidoras* tienen el contacto más directo con el público, su participación más activa beneficiará a todo el sector de bosques y productos forestales tropicales.

2. **Mayor Capacitación, Extensión e Investigación Aplicada en Utilización y Manufactura de Maderas.**
   Estos son un requisito esencial para satisfacer las necesidades técnicas de mayor prioridad seleccionadas por los encuestados. Por ejemplo, *Mejorar diseño y mercadeo para productos de mayor valor agregado* y, *Expandir investigación aplicada y desarrollo en utilización de madera de plantaciones jóvenes.*

   En varios países en vías de desarrollo, las inversiones privadas para expandir en forma sustentable las plantaciones forestales se han vuelto una necesidad ambiental, social y

económica urgente. Programas apropiados y financieramente rentables de plantaciones forestales pueden ayudar a reducir la degradación de los recursos naturales, la pobreza y emigración rural y, las emisiones de gases invernadero.

3. **Potenciando el Impacto de OIMT: Cooperación más Estrecha con las Asociaciones de Productores y las Entidades Locales de Capacitación.**
   Tanto en la América Tropical como en Africa Oeste y Central, las respuestas del grupo *Otros* indican que su participación histórica en proyectos o actividades de OIMT es el doble, comparada al grupo *Productores*.

   Las "estrategias de salida" en el diseño de los de los proyectos de OIMT debieran enfatizar aún más la formación de consorcios durables entre entidades locales de capacitación y asociaciones de productores. Estos consorcios son más fáciles de empezar que sostener en el tiempo. Sin embargo, este tipo de ¨sociedades¨ (partnerships) pueden ayudar a crear y desarrollar mecanismos efectivos de transferencia tecnológica y extensión a productores, especialmente, a los pequeños y medianos.

   Para mejorar su diseminación a las empresas productoras, ITTO podría considerar las siguientes sugerencias adicionales de los encuestados: tecnologías apropiadas para los propietarios de terrenos y productores de menor escala; sitios-web relevantes y fáciles de usar para compartir información y publicaciones; una **biblioteca virtual** de referencia; creación de consorcios locales o regionales para compilar, editar y distribuir contenidos; días de campo e intercambios de productor-a-productor; talleres; entrenamiento práctico in-situ en proyectos exitosos, entre otros.

   Los Pasos Siguientes para la Actividad 33 son:
   Fase 4. Diseño de los Instrumentos de Diseminación (Febrero 2014)
   Durante esta fase habrá una exploración conjunta con los actores que han mostrado el mayor interés. Las actividades demostrativas serán diseñadas para satisfacer las necesidades prioritarias identificadas por la encuesta. Los mecanismos de difusión que se elijan, servirán para adaptar y desarrollar enfoques con alto potencial demostrativo.

   Fase 5. Selección Final y Puesta en Marcha de Actividades Demostrativas (Marzo, 2014)
   Dependiendo de la disponibilidad presupuestaria de OIMT una, y hasta dos actividades demostrativas, se elegirán en forma competitiva para la su implementación. Los criterios de selección incluirán: nivel de compromiso local y regional de los productores y sus entidades de apoyo y servicio; financiamiento compartido seguro y durable.

   Fase 6. Implementación (Abril 2014-)

SYNTHÈSE

L'Activité n° 33 a pour objet d'exploiter les informations générées dans le cadre de projets antérieurs de l'OIBT aux fins de répondre aux besoins de ses pays membres. Les objectifs spécifiques du sondage susmentionné étaient les suivants:

i) Identifier les domaines prioritaires au niveau régional chez les catégories «Producteur», «Consommateur» et «Autre»;
ii) Identifier les pays et les domaines éligibles à la phase de démonstration de l'Activité n° 33; et
iii) Renforcer le rayon d'action de l'OIBT.

i) Domaines techniques prioritaires (1=*Aucune importance*; 5=*Très Important*)

Dans l'ensemble, les domaines prioritaires qui se sont dégagés à l'issue du sondage furent les suivants:

- *Appuyer le développement de produits et la commercialisation de produits à valeur ajoutée (4,6 points)*
- *Élargir la diffusion des connaissances sur les essences moins utilisées (4,5 points)*

Au niveau régional, les domaines prioritaires ont été les suivants:

- *Élargir la formation à la gestion durable des forêts et aux coupes à impact réduit (*Afrique de l'Ouest et centrale: 4,7 points; Amazonie: 4,4 points)
- *Étendre la recherche appliquée et le développement aux bois juvéniles issus de plantations (*Amérique centrale et andine-Mexique: 4,3 points).

ii) Pays et domaines éligibles à la phase de démonstration de l'Activité n° 33

Jusqu'à présent, les combinaisons suivantes ont été retenues afin d'être examinées plus en détail:

- *Appuyer le développement de produits et la commercialisation de produits à valeur ajoutée (*Pérou, RU, autres).
- *Étendre la recherche appliquée et le développement aux bois juvéniles issus de plantations (*Amérique centrale et andine-Mexique, autres).
- *Élargir la diffusion des connaissances sur les essences moins utilisées (*Afrique de l'Ouest et centrale, Amazonie et monde entier).

iii) Renforcer le rayon d'action de l'OIBT

À partir des réponses ont émergé **les principaux problèmes suivants:**

1. Faiblesse des liens entre l'OIBT et les prestataires d'activités commerciales chez les Consommateurs.

L'absence de participation au sondage de la part des prestataires d'activités commerciales dans l'ensemble des *pays consommateurs* à travers le monde constitue un important message. Une majorité des sondés, y compris consommateurs, ont classé le besoin de *Sensibiliser le public à la gestion durable des forêts et aux produits forestiers certifiés* comme étant *Important* ou *Très Important* sur le plan des questions d'orientation politique. Sachant que, dans les *pays Consommateurs*, les activités commerciales sont plus proches du public, leur mobilisation aiderait le secteur de la foresterie et des produits forestiers tropicaux au sens large.

2. Absence de formation, de recherche appliquée et de vulgarisation au niveau de l'utilisation et de la transformation du bois.

Il s'agit du maillon manquant pour répondre aux besoins techniques prioritaires sélectionnés par les sondés. Il recouvre les domaines suivants:

Le besoin d'***Appuyer le développement de produits et la commercialisation de produits à valeur ajoutée*** **et d'*Étendre la recherche appliquée et le développement aux bois juvéniles issus de plantations*.** Dans plusieurs pays en développement, élargir les plantations forestières tropicales constitue un défi pressant aux niveaux environnemental, social et économique. Mis en œuvre de manière appropriée, les programmes de plantation forestière peuvent aider à réduire la dégradation des forêts, la pauvreté en milieu rural, l'émigration et les émissions de gaz à effet de serre au niveau mondial.

3. L'opportunité pour l'OIBT de mieux tirer parti des associations professionnelles et entités locales de formation.

Dans les régions tropicales des Amériques, en Afrique de l'Ouest et en Afrique centrale, **les sondés du groupe *Autre* ont deux fois plus de chances d'avoir participé à un projet ou à une activité de l'OIBT, comparé aux *Producteurs*.**

Eu égard aux projets et activités de l'OIBT, la mise en place de partenariats durables entre les associations professionnelles locales et les entités de formation et développement devrait être davantage mise en avant dans le cadre des stratégies de conception et de sortie. Dans la mesure où il est plus facile de lancer un projet que de le pérenniser, ces partenariats pourraient aider à introduire, adapter et mettre au point des mécanismes efficaces au plan local qui seraient destinés à élargir les transferts de technologie et leur vulgarisation chez les producteurs, en veillant à privilégier les petites et moyennes entreprises.

Les autres domaines suggérés par les sondés que l'OIBT pourrait envisager en vue d'améliorer son rayon d'action sont les suivants: proposer des technologies qui soient adaptées aux petits producteurs et propriétaires fonciers; favoriser l'associativité entre les producteurs; exploiter de manière plus efficace l'emploi des vidéos et de la technologie Internet; créer un site technique convivial destiné à partager les informations et les publications antérieures, qui constituerait une **bibliothèque virtuelle**; nouer des partenariats destinés à compiler les informations au niveau local ou régional et mettre à disposition les contenus pertinents; organiser des journées de visite sur site, des échanges entre producteurs, des ateliers, des formations pratiques courtes ayant trait aux projets couronnés de succès, entre autres.

Les principales étapes prévues pour l'Activité n° 33 sont:

Phase 4. Conception d'instruments de diffusion (février 2014)

Durant cette phase, les domaines éligibles mentionnés précédemment seront explorés conjointement avec les parties prenantes qui ont manifesté le plus grand intérêt à leur égard. Des activités de démonstration seront mises au point afin de répondre aux besoins techniques prioritaires identifiés. Seront sélectionnés des mécanismes de diffusion des transferts permettant de présenter les approches de vulgarisation les plus prometteuses.

Phase 5. Sélection finale et démarrage des activités de démonstration (mars 2014)

En fonction des financements mis à disposition par l'OIBT, deux activités au maximum seront sélectionnées de manière concurrentielle en vue de leur mise en œuvre. Les critères de sélection seront les suivants: niveau d'appropriation et d'engagement aux niveaux local et régional de la part des producteurs et des entités de soutien; financement local pérenne partagé.

Phase 6. Mise en œuvre (avril 2014-)

I. FINDINGS AND RECOMMENDATIONS

A. MAJOR FINDINGS

Of the total 446 responses received, only 193 were "*Completed responses*", with all questions answered. As indicated by the survey-tool's metadata, thirty percent of respondents quit before seven minutes, many connected from smartphones or during travel. All countries which originated the 314 responses which took over seven minutes, are listed on Annex D.

The 121 incomplete responses that took seven minutes or longer, had a fair amount of data. Testing showed that introducing these incomplete responses would cause negligible changes in most global averages while introducing biases in the ranking questions. For this reason, only completed responses were analyzed.

Businesses, including 15 enterprises from *Other*, accounted for 54% of the analyzed responses. Tropical *Producer* countries generated 174 complete responses and *Consumer* countries 19. Only 3 complete responses were received from East Asia and the Pacific Islands region. Calculating their regional parameters would be misleading; however, their answers are included in the global parameters and their comments listed.

About 60% of the responding businesses employed 16 full time workers or more and about 25% employed over 100 workers. The proportion of responses by large firms was highest in West & Central Africa where 58% of the responding businesses employed over 100 workers.

The major issues highlighted by this survey are:

1. Need to Forge Consensus on Tropical Forest Policy Priorities.

Three policy actions were included within a dozen of technical topics to be ranked by respondents, from *Not at All Important* (score =1) to *Very Important* (score =5). A majority of respondents from all geographic regions ranked all three policy actions as *Important or Very Important,* Fig. I-1.

A statistical analysis of the scores shows there is room for fostering a better alignment of the forest policy views of *Consumer* businesses, *Producers* businesses and *Other.* Globally, *Other* includes instructors and researchers (36%), providers of technical services and equipment (15%), staff of government (14%) and NGO's (35%). For example, the policy of *Providing economic incentives to certified natural forest management* has *significantly* (*95% level) higher support from *Producers than Consumers* or Other.

Fig I-1 Forest Policy Views of Global Respondents:

Policy Action	**% who ranked the policy action as *"Important or Very Important"***		
	Producer (70 Completed)	***Other*** (104 Completed)	***Consumer*** (19 Completed)
Educate consumers about sustainable sources of forest products	97%	86%*	78%*
Provide economic incentives for certified forest management	97%	85%*	53%*
Promote joint public/private	94%	84%	63%*

Policy Action	% who ranked the policy action as *"Important or Very Important"*		
	Producer (70 Completed)	***Other*** (104 Completed)	***Consumer*** (19 Completed)
field initiatives to streamline regulatory practices and strengthen compliance in the forests value chain			

*Average score, not shown, is *significantly* lower than the Producer's score at 95% confidence level.

Important policy and program suggestions came from comments by individual respondents. For example, they called for their countries to develop deliberate forestry development strategies which reflect a broader view of the forest sector. Comments asked ITTO programs to consider biomass energy and environmental services and to use a value-chain approach where the different components of the chain are well integrated. Annex B has a web-link to the complete list of original, un-edited comments.

2. Weak Connection of ITTO with *Consumer Country* Businesses.

Consumer country businesses, "Consumers", provided 19 completed responses or 10% of the total global "Completed" responses. Eight responses came from the UK, six from Brazil, three from the USA. No completed responses came from *Consumer* businesses in Continental Europe or Asia.

Of the Consumer businesses with completed responses, 63% employed 16 or more full time workers and 26% employed over 100 workers. A 53% manufacture intermediate or finished products and 83% of them import saw timber or lumber as their top product.

Natural forests were the top raw material source for 69% of Consumer businesses. These Consumer respondents sourced 72% of their forest products from either West & Central Africa or the Amazon, with each region contributing equal shares or 36%.

A 61% of *Consumers* had heard about ITTO and 50% of the total had read the ITTO Timber Market Report but only 44% of all *Consumers* had visited the ITTO website.

Consumer businesses ranked *significantly* (*95%) lower than *Producer* businesses or *Other,* the importance of most options for ITTO *Improving trade of sustainably produced forest products* or for *ITTO to Share information of past projects.*

To better understand the weak response from *Consumers*, the Consultant made follow-up inquiries with selected responding *Consumers*. The results are best summarized by quoting an experienced European importer:

"I think that only a few companies in the UK timber trade are concerned about the technical issues of what goes on in tropical forests. Most are interested in species availability, price and legality. They should be more interested but generally they are not! The ITTO is therefore seen as dealing with someone else's issues. This is probably true in other consuming countries."

3. Lack of Training, Applied Research and Extension in Wood Utilization and Processing.
Instructors, researchers, providers of technical services and equipment (*Other*) were asked to identify and rank their technical expertise in three levels. Of the 103 who responded globally, 46 declared a *top level* of technical expertise as shown in Fig.I-2.

Fig. I-2 Lack of Technical Expertise in Wood Utilization and Processing

Selected Technical Topics	**Top expertise *Global***	**Top expertise *Central& Andean America, Mexico***	**Top expertise *Amazon***	**Top expertise *W.&Central Africa***
Forest harvest planning	24	13	10	1
Lumber manufacturing	6	2	3	0
Lumber kiln drying	6	1	3	0
Saw-doctoring	0	0	0	0
Wood preserving	2	1	1	0
Flooring	2	0	1	0
Veneer/panel manufacturing	1	0	1	0
Building joinery and carpentry	0	0	0	0
Furniture manufacturing	1	0	1	0
Wood specialties	1	0	1	
Wood combustion, steam, electrical, generation	3	2	1	0
Total respondents	**46**	**19**	**22**	**1**

While the global response is uneven and individuals with certain types of mill floor expertise were not easily reached with this survey, the above numbers provide a fair warning. The many comments and suggestions by respondents reinforce the need for instructors, trainers and technical training programs in wood utilization and processing, saw-doctoring, building joinery and carpentry, and value-added manufacturing.

Plantation forestry is expanding fast in many tropical countries with acute timber deficits and chronic employment and fiscal challenges. A pillar in the economic and market foundation for these new private forestry investments is the local capacity to select, adapt and use new wood technologies which add value to plantation roundwood. Specific topics include: processing small diameter timber; maintaining thin-blade saws; kiln-drying juvenile wood; proper use of adhesives, lamination and other wood composites, among others.

4. Opportunity for ITTO to Leverage More on Trade and Producer Associations and Local Training Entities.
The suggestions made by respondents called for ITTO to promote durable alliances between training entities, producer groups and trade associations at several different levels. ITTO projects and activities promote associativity when they partner with local trade associations to organize joint on-site and off-site training such as producer-to-producer exchanges, field days, workshops and extension programs.

Instructors, researchers and providers of technical services and equipment (51% of *Other*), expressed willingness and flexibility to participate in joint training programs tailored to industry

needs. A 61% of *Other* has read the ITTO Market Report and 65% have read ITTO Technical Manuals. Unfortunately, only 43% of *Other* is affiliated to trade associations. Trade associations could benefit by seeking their colleagues' technical expertise and membership.

ITTO projects can help the local adoption of proven mechanisms for effective and longer-term cooperative applied research and development. Examples include: the inclusion of producers on the advisory boards of research and training entities; developing earmarks for durable funding from local, regional and national governments; fees for services schemes paid by producers.

B. SUGGESTED TECHNICAL TOPICS

1. Top Global Topics

The average importance scores given by respondents of different regions to the technical topics are in Fig. I-3 below. Nine possible technical actions were presented in random order to each respondent. The technical topics which obtained the highest average weighted scores fell in a relatively narrow range of *Important* to *Very Important* across all regions.

The top two topics globally, were:

- ***Support product development and marketing in value-added products***
- ***Make knowledge about lesser used species more available***

Global producers ranked the importance of the top topic as being statistically higher than the second topic at the 95% confidence level. Those few technical topics that regions ranked differently, compared to the global averages, are at the bottom of the table and are discussed in the next section.

Fig. I-3 Suggested Technical Topics for Action

Importance Scores: *Not at all Important*: 1 point; *Very Important*: 5points.

	Producers & Other				***Consumers***
Global Priority Topics	Central, Andean America, Mexico (83)	Amazon (63)	West &C. Africa (17)	S.E Asia Pacific Is. (3)	Global Businesses (19)
Support product development and marketing in value-added products	**4.60**	**4.52**	**4.65**	nd	3.50
Make knowledge about lesser used species more available	4.42*	**4.42**	**4.56**	nd	3.89
Promote joint public/private field initiatives to streamline regulatory practices and strengthen compliance in the forests value chain	4.38	4.44	4.55	nd	3.74
Develop performance standards, product grading and quality control for expanding local timber construction	4.29	4.29	4.27	nd	3.17
Regional Priority Topics					
Expand applied research and development for juvenile wood from plantations	**4.30***	3.9	3.1	nd	3.68
Expand training in sustainable forest	4.14	4.44	**4.70**	nd	3.78

	Producers & Other				***Consumers***
Global Priority Topics	Central, Andean America, Mexico (83)	Amazon (63)	West &C. Africa (17)	S.E Asia Pacific Is. (3)	Global Businesses (19)
management and reduced impact logging					

**significantly* different at 95% compared to top topic highlighted; nd=insufficient data

2. Regional Differences in Technical Priorities.

The following regions ranked some topics much higher than the global average:

Central America-Mexico, Andean S. America. In this region 81% of Producers got a majority of their raw material supply from plantations. The following topics were ranked *Important or Very Important:*

- ***Developing Local Timber Construction* (97% of regional respondents)**
- ***Expanding Applied Research on Plantation Juvenile Wood* (94% of regional respondents)**

West & Central Africa and the Amazon. In these two regions, 90% and 88% of the Producers got the majority of their raw material from natural forests. The following topic was ranked *Important* or *Very Important* by 100% and 95% of the Producers:

- ***Expand training in sustainable forest management and reduced impact logging.***

3. Differences in Priority Ranking Between Roles: Producer, Other, Consumer.

With the exception of the policy issue *Provide economic incentives for certified forest management*, the priority rankings assigned to technical topics by *Producers* were generally not *significantly* (i.e. statistically with 95% confidence) different from those assigned by the group *Other*. As discussed earlier, *Consumer* respondents assigned much lower importance than *Producers* or *Other* to most technical and policy issues listed by the survey.

C. SUGGESTED DIFFUSION MECHANISMS

All four alternative diffusion mechanisms listed by the survey were deemed to be *Important* or *Very Important* options which ITTO should consider when transferring technology and information from its past projects. Global Producers and Consumers ranked diffusion mechanisms *significantly* differently as shown in Fig.I-4. As was the case for technical priorities, there are some basic structural underlying factors and beliefs by Consumers, well beyond the technical or business merits of each choice. The regional differences in ranking diffusion mechanisms between geographic regions and between Producers and Other are much smaller. They can be seen in Fig. IV-C in Annex C.

The selection of a preferred diffusion mechanism is case and country-specific. The individual comments by respondents, combined with their regional technical topics, suggest that successful diffusion mechanisms are likely to have one or more of the following traits:

- Great emphasis on field demonstrations and joint hands-on initiatives
- Conducted with a complete value-chain approach, maximizing value-added at each stage

- Use public/private cooperation to tackle training, regulatory and compliance aspects
- Well-linked to training entities and trade associations that can sustain programs over long-term
- Effective use of internet, videos and technology to share already existing information
- Place materials from past projects in libraries or virtually, on appropriate websites

Fig. I-4 Diffusion Mechanisms Ranked

Not at all Important: 1 point; Very Important: 5points.

	Global Producers (70)	**Consumer Businesses** (19)
Promote field demonstrations to develop products and commercial aspects for recent ITTO projects.	Avg. =4.33 Std. Dev.= 0.75 N=69	Avg. =3.94 Std. Dev.=0.85 N=14
Promote existing or new international networks to improve utilization and marketing of given species or products.	Ave.= 4.30* Std. Dev.0.73 N=69	Avg. =3.53* Std. Dev.= 1.27 N=19
Place past technical manuals and reports on websites with easy access and long life.	Avg.= 4.28 Std. Dev.= 0.81 N=67	Avg.= 3.89 Std. Dev.= 0.85 N=19
Support partnerships of buyers and local NGO's to deliver technical, marketing assistance and credit mechanisms for small, medium and community	Avg.=4.28* Std. Dev.= 0.76 N=68	Avg.=3.21* Std. Dev.= 1.15 N=14
Promote joint public-private-community field initiatives to manage forests sustainably including product development and regulatory compliance.	Avg. =4.21 Std. Dev.= 0.80 N=68	Avg. =3.84 Std. Dev.= 1.04 N=19

*Indicates that mechanism was ranked statistically different by global Producers and Consumers at 95% confidence level.

D. EXTENDING ITTO´S OUTREACH

1. Educating The Public and Policy-Makers About Sustainable Forestry and Certified Products.

This is a key sector policy and strategic issue for ITTO. We shall focus on promoting awareness and use of certified products. Respondents suggested that ITTO support initiatives to establish technical, performance-based, quality standards; to ensure that procurement by local government entities play a role in promoting- and not discouraging- the use of certified wood products, for example, in rural

schools, school furniture, public works among others. Here, public/private partnerships involving local governments, training entities and local producer associations and their members can help.

Worldwide, there have been many field projects by different national and international agencies, CIRAD, FRIM,IPT,UNIDO, INBAR,GTZ, USAID, USDA, among many others, that have designed, implemented and documented wood-based and bamboo-based designs for rural homes, schools, health clinics, school furniture, bridges, second floor home expansions, bus stop roof structures, etc. They could be valuable contributions to a virtual library on the subject.

2. Extending the Reach of ITTO's Publications and Past Information.

Good ITTO recognition among *Producer* and *Other.*

Globally, 87% of the *Producers* with complete responses had heard about ITTO. In the *Other* group, 90% had heard of ITTO. Among *Consumers,* 61% had awareness of ITTO.

Only 36% of global producers with complete responses had visited the ITTO website prior to this survey. They rely mostly on direct emails and also on their trade and producer associations for receiving and accessing ITTO publications.

Of the 19 *Consumers with complete responses*, 61% had heard of ITTO and 44%had visited the ITTO website. *Consumers* is quite a small global sample, heavily concentrated in the UK, and results may be influenced by larger company sizes, higher levels of internet connectivity in the U.K. and an active trade association.

Mixed readership for most ITTO publications. A notable exception is the ITTO Tropical Timber Market Report which is read consistently across all regions by 59% of *Producer,* 61% of *Other* and by 50% of *Consumer* complete respondents. The readership level of most other ITTO publications included in the survey varies significantly by region and role.

Despite fairly low levels of prior visits to the ITTO website by Producers (36%) and Consumers (44%), a majority have read the ITTO Tropical Timber Market Report digitally, mostly by email (69% of *Producer*, 84% of *Other* and 100% of *Consumers)*. A roughly similar distribution pattern was observed for ITTO's Tropical Forest Update magazine.

The regional and individual country responses indicate that some producer associations have been able to keep their members abreast of technical publications such as ITTO Technical Manuals via paper copies.

Fig. I-5 Global Outreach by ITTO to All Stakeholder Groups***

Complete Respondents Who Have:	**Producer 70 (51)**	**Consumer 19 (15)**	**Other 104 (46)**
Heard of International Tropical Timber Organization or ITTO/OIMT/OIBT	87% (82%)	61% (53%)	90% (78%)
Visited the ITTO website (www.itto.int)	36%	44%	67%
Read ITTO Tropical Timber Market Report	59% (54%)	50% (40%)	61% (33%)
Read ITTO Tropical Forest Update Magazine	49% (48%)	13% (0%)	63% (41%)
Read ITTO Technical Manuals	33% (29%)	33% (25%)	61% (33%)
Read ITTO SFM Tropics	20% (14%)	20% (8%)	51% (24%)
Belong to Trade Associations in the forest and forest products sector	70%	68%	43%

*** Numbers in parentheses are respondents who had never, directly or indirectly, participated in an ITTO project or activity prior to the survey.

Based on the count in the headings of Fig. I-5, we can infer that globally, 73% of *Producers* and 79% of *Consumers* with complete responses had never participated in an ITTO project or activity before the survey. This fact greatly reduces the biases of their responses as compared with an average Producer or Consumer of similar size and location. On the other hand, only 44% of *Other* respondents had not participated in an ITTO project or activity prior to the survey. **Importantly, this data shows that in the tropical Americas and Western & Central Africa, members of the group *Other* were twice as likely as *Producers* to have participated in an ITTO project or activity.**

Fig. I-6 Present Outreach by ITTO to Producer* Regions and Consumer Businesses

Complete Respondents Who Have:	Central, Andean America, Mexico (32 responses)	Amazon (26)	West&C. Africa (10)	Consumer Businesses (19)
Heard of International Tropical Timber Organization or ITTO	88%	80%	100%	61%
Visited the ITTO website (www.itto.int)	38%	20%	50%	44%
Read ITTO Tropical Timber Market Report	61%	52%	56%	50%
Read ITTO Technical Manuals	14%	43%	67%	33%
Belong to Trade Associations in the forest and forest products sector	88%	42%	90%	68%

*Responses from *Other,* not included here. Only complete responses included.

3. Make Existing Information About Lesser Used Species More Available.

ITTO and many other national and international entities have spent considerable effort in several regions, over many decades, identifying trees, describing wood properties and testing processing conditions for utilizing Lesser Used Species, LUS. Many valuable reports, books, databases and sample collections have been published. Today, however, those publications are not easily available. Even some digital compilations done over the last twenty years are no longer usable in modern digital formats, programs and platforms. ITTO is in a good position to develop innovative mechanisms for extension and delivery of existing information by working in global, regional and local partnerships that take full advantage of modern information technology. **This topic was ranked as a high global priority and is specific and narrow enough to warrant serious consideration as one of the candidates for follow-up demonstrations.**

In most countries, the group *Other,* reports significantly more readership and access to information than *Producers.* The character and effectiveness of trade associations differs greatly among regions. Trade associations that, as part of their mission pursue the technical training and business development of their membership, can play a decisive role in overcoming the lack of individual internet connections, access to technical and marketing publications, among other.

Fig. I-7 Present Regional Outreach by ITTO to Producers on LUS

	Central, Andean America, Mexico (32 responses)	Amazon (26)	West Africa (10)
Belong to Trade Associations in the forest and forest products sector	88%	42%	90%
*Visited the ITTO website*** (www.itto.int)*	38%	20%	50%
Read ITTO Tropical Timber Market Report	63%	52%	56%
Read ITTO Technical Manuals	14%	43%	67%
Read ITTO Tropical Timbers Database	19%	42%	56%

***These are the correct figures based on a supplementary survey question

E. CANDIDATE TOPICS AND COUNTRIES FOR DEMONSTRATIONS

The Producer country with the most completed responses was Peru, classified here as Amazon region, based on its predominant timber supply. The Consumer country with the highest completed responses was the U.K. During the next phase of Activity 33, opportunities will be explored to conduct demonstrations in topics of global and regional priority, such as product development, in these countries.

The region with the highest number of completed responses was Central & Andean S. America-Mexico. Their interest in expanding applied research and development for juvenile wood from plantations will be explored.

West & Central Africa and the Amazon *Producers* as well as the global *Consumer respondents* showed interest in *Make knowledge about lesser used species more available*. As discussed earlier,

this topic lends itself well to help ITTO develop and test innovative approaches to strengthen outreach and extension.

To facilitate local analyses and follow-up discussions, Annex A includes internet links to download public versions of the survey global and regional reports. After removing personal information, they were printed directly from the Fluidsurveys.com web-tool. An individual survey-tool report is included for Peru in recognition to its top responder status. Global individual comments, unedited, were included exactly as submitted, in their original languages. The web-link for accessing them is in Annex B.

II. SURVEY PURPOSE AND DESIGN

A. ACTIVITY 33 PURPOSE

Activity 33 aims to match information developed by ITTO past projects to the needs of its member countries. This survey is part of a global consultative process, i.e., identifies a preliminary list of high priority topics for technology transfer by ITTO in countries with both needs and interest. During Activity 33's next phase, a couple of field demonstration activities will be explored in detail with interested parties. Their implementation will start early in the second quarter of 2014.

B. SURVEY OBJECTIVES

The primary objective of ITTO's Technology Transfer Survey was to identify the priority needs of different regions, the best vehicles for technology transfer and product development and, the countries that show the most interest in participating in field demonstrations of Activity 33.

A second survey objective was to provide ITTO with an assessment of their current outreach to stakeholder groups in different countries and regions.

C. SURVEY DESIGN

The technical topics chosen initially for the Technology Transfer Survey resulted from a review of several dozen of ITTO's worldwide projects of the last two decades. A draft survey plan was designed and submitted to three rounds of comments by a dozen of experienced individuals representing all continents and roles, as well as a few ITTO insiders.

The trilingual (English, Spanish and French) survey questionnaire was designed using the software platform of a commercially available internet based service ("web-tool") offered by a Canadian company, Fluidsurveys.com, which has effective multilingual capabilities for information collection, analysis and reporting.

In an effort to reach rural or less connected producers, the option was made available to producer organizations, NGO's and governments to collect survey information using paper questionnaires to be returned to the Consultant via airmail. No paper questionnaires were received.

III. SURVEY DISTRIBUTION AND RESPONSES

A. SURVEY DISTRIBUTION METHODS

In late August 2013 an introductory letter by ITTO's Executive Director explaining Activity 33 was sent by the ITTO Secretariat to all ITTO Producers and Consumer members. It presented the Survey and requested the ITTO focal points, usually local government officials, to support the Consultant.

Depending on the response and level of interest shown by either a country's public sector or organized producers and NGO's, the following four distribution channels were offered. Up to two follow-up reminders were sent for each of the distribution methods.

- **Personalized invitations by the Consultant using the web-tool to a list of relevant invitees** provided by the country's public forestry entity or leading associations or NGOs. Over 700 personalized invitations were e-mailed by the Consultant during September and early October 2013. The survey was closed Nov 12, 2013 and reopened, at the request of ITTO, until January 12, 2014.
- **A global internet link (*default collector*) was emailed directly by international experts to their own network of contacts**.
- **A collective invitation issued locally by the producer associations to their members** by advertising an internet link (web-link or "collector") provided by the Consultant for that specific country, region or association. According to assurances by local producer associations, between 1,000 and 1,500 producers and consumers globally received collective invites from local producer associations and NGO's to participate in the survey.
- **A printable MS Word paper questionnaire for each role: Producer, Consumer or Other in English, Spanish and French, which government extension services, producer associations or NGO's could print and distribute** to rural producers to fill by hand and return via airmail to the Consultant at a dedicated post office box.

B. TOTAL RESPONSES

Total responses obtained were 446 from 15 *Producer* countries and 18 *Consumer* countries. Of these, only 193 or 43% were *Completed* responses, i.e. where respondents answered all questions. The median response time from all *Completed* replies was 16.5 minutes and 64% of the completed responses were done in 20 minutes or less according to the metadata.

When considering *Incomplete* responses that took over 7 minutes to finish, a total of 314 responses were received (see Annex D for country list). These additional 121 *Incomplete* responses include a substantial number of questions completed. However, as mentioned earlier, only the 193 complete responses were used for the bulk of the analysis. This was to avoid biases, especially in ranking questions.

C. RATE OF RESPONSES

The number of personalized invitations issued via the web tool is accurately known. The collective invitations issued are estimates based on the number of members declared by the trade associations or other entities who offered to notify their respective stakeholders or associates. As Fig. III-1 shows, the average response rate was 23% but only 43% of the responses were complete responses.

Fig. III-1 Survey Response Rates

Distribution method	Invitations issued	All Responses	Response rate	Complete responses	Completed %
Personalized email invites, reminders	700	204	29%	119	58%
Collective invitations by local trade associations and NGO's*	1,200	242	20%	74	31%
Total all methods	**1,900**	**446**	**23%**	**193**	**43%**

***This is an estimate by trade associations of their membership

D. LESSONS LEARNED

It was essential that each main role (*Producer, Consumer, Other*) have their own questionnaire. The consumer businesses, however, perceived many of the forestry questions as not relevant to their major business issues. This detached reaction of *Consumers* had been anticipated by one European trade federation executive and was discussed under Major Findings, page 11.

The inclusion of three policy actions among the technical topics was appropriate and relevant according to the comments received. It recognizes that businesses in this sector often perceive policies and regulatory obstacles as bigger challenges than technical aspects.

The overall complexity and length of the survey were rather high. Respondents attempting to use smartphones or in travel status had a very low completion rate as indicated by the web-tool's survey data. On the other hand, including forest supply and industry structure questions was important as explained below.

The best rates of response and completion were obtained when personalized invites and reminders were issued through the survey tool, using email lists provided by producer associations, NGO's and governments. In contrast, disappointing results came from the distribution of collective invitations by producer associations which shared a country-wide internet link with their members. In one case, the survey notice was buried inside a long trade association newsletter and it excluded the appropriate link.

The separation of countries into Producer or Consumer per ITTO's charter, creates difficulties for analytical purposes. For example, large countries like Brazil and China have a wide range of producer and consumer businesses as do countries that participate in global manufacturing schemes like Mexico, Guatemala, among others. The similarity of the timber supply mix-- e.g. natural forests or plantations-- and the local industry structure in each country are important when defining regions for analysis and program design.

Future efforts to study specific issues in a given country or design detailed programs to better reach small and medium producers may wish to consider focused and shorter topical surveys, sample geographic areas and use face-to-face interviews by trained field crews, to reach the full range of stakeholders and relevant actors.

It was not easy to find modern web-based survey tools that have, by design, effective multi-language capabilities. The key is that each language be treated as a skin of a single survey. They must be

flexible enough to accommodate and mix a variety of input and output vehicles, including portable electronics, kiosks as well as paper questionnaires. The latest version of the web-tool used here (Fluidsurveys.com “Ultra” level of service) was recently introduced and still has a few reporting issues that are being fixed. While its customer service response is not fast, its design and flexibility are outstanding and were a good fit for this survey.

IV. ANNEXES

ANNEX A. INTERNET LINKS TO PUBLIC GLOBAL AND REGIONALREPORTS

Report Name File Name	Lang.	Internet Location
Global Reports		
Global.Completed.Public.Eng	Eng.	https://www.dropbox.com/s/lzdb9o5v8wcet32/Completed.Global.Public.Eng.E%2CT.Jan16.Word.docx
Completas.Global.Esp.Publico	Spa.	https://www.dropbox.com/s/tm7ygfh2hao85zf/Completas.Global.Ene%2026%2C2014.Publica.E.TWord97-2003.doc
Complete.Global.French.Public	Fre.	https://www.dropbox.com/s/2si8m0o5cpo0pga/Complete.Global.Public.French.E%2CT.Jan26%2C2014.docx
Reports by Region		
Amazonia.Completas.Pub.En12	Spa.	https://www.dropbox.com/s/uknjnxu4pwqva6d/Completas.Amazonicos.Pub.Esp.E%2CT.Word97-2003.docx
Central&Andean_Amer,Mex.Completas.Pub.Esp	Spa.	https://www.dropbox.com/s/xzhizlpzlda57mq/Completas.Central%26%2CAndean%20Amer%2CMex.Ene12%2C2014Pub.Esp.E%2CT.Word97-2003.doc
Africa_West&C.Complete.Public.Eng	Eng.	https://www.dropbox.com/s/awldcnftbgkhloo/Completed.West%26C.Africa.Public.Eng.E%2CT.Jan16%2C2014%2CWord.docx
Complété.Afrique Ouest,Centrale. Publique.Fr	Fre.	**https://www.dropbox.com/s/ynu42c0q1cfhdqg/Compl%C3%A9t%C3%A9.Afrique%20Ouest%2CCentrale.Publique.Fr.E%2CT.Janv%2016%2C2014%2CWord.docx**
Top Responding Country		
Peru.Completas.Publico.Esp	Spa.	https://www.dropbox.com/s/cyad4hqf7hbzayq/Peru.Esp.Pub.En12%2C2014.ESP.E%2CTWord97-2003.doc

ANNEX B. INTERNET LINK FOR THE UNEDITED LIST OF RESPONDENT COMMENTS

https://www.dropbox.com/s/3y561j4rrtqgr7v/Annex%20B.Selected%20unedited%20comments%20from%20global%20respondents.%2CT.docx

ANNEX C. IMPORTANCE SCORES FOR DIFFUSION MECHANISMS: REGIONAL, GLOBAL

Fig.IV-C. Importance Scores Assigned by Respondents to Proposed Diffusion Mechanisms

Not at all Important: 1 point; Very Important: 5points.

	Central, Andean America, Mexico Producers (32 responses)	Amazonic Producers (26)	West, Central Africa Producers (10)	Global Producers*** (70)	Consumer Businesses (19)
Promote existing or new international networks to improve utilization and marketing of given species or products.	**4.29**	4.35	4.34	Ave.= 4.30* Std Dev.0.73 N=69	Avg. =3.53* Std. Dev.= 1.27 N=19
Promote joint public-private-community field initiatives to manage forests sustainably including product development and regulatory compliance.	4.03	**4.32**	**4.42**	Avge. =4.21 Std. Dev.= 0.80 N=68	Avg. =3.84 Std. Dev.= 1.04 N=19
Place past technical manuals and reports on websites with easy access and long life.	4.26	4.25	**4.51**	Avge.= 4.28 Std. Dev.= 0.81 N=67	Avg.= 3.89 Std. Dev.= 0.85 N=19
Support partnerships of buyers and local NGO's to deliver technical, marketing assistance and credit mechanisms for small, medium and community	4.25	4.25	4.00	Avge.=4.28** Std. Dev.= 0.76 N=68	Avg.=3.21** Std. Dev.= 1.15 N=14
Promote field demonstrations to develop products and	4.16	**4.46**	**4.40**	Avge. =4.33 Std. Dev.= 0.75 N=69	Avg. =3.94 Std. Dev.=0.85 N=14

	Central, Andean America, Mexico Producers (32 responses)	Amazonic Producers (26)	West, Central Africa Producers (10)	Global Producers*** (70)	Consumer Businesses (19)
commercial aspects for recent ITTO projects.					

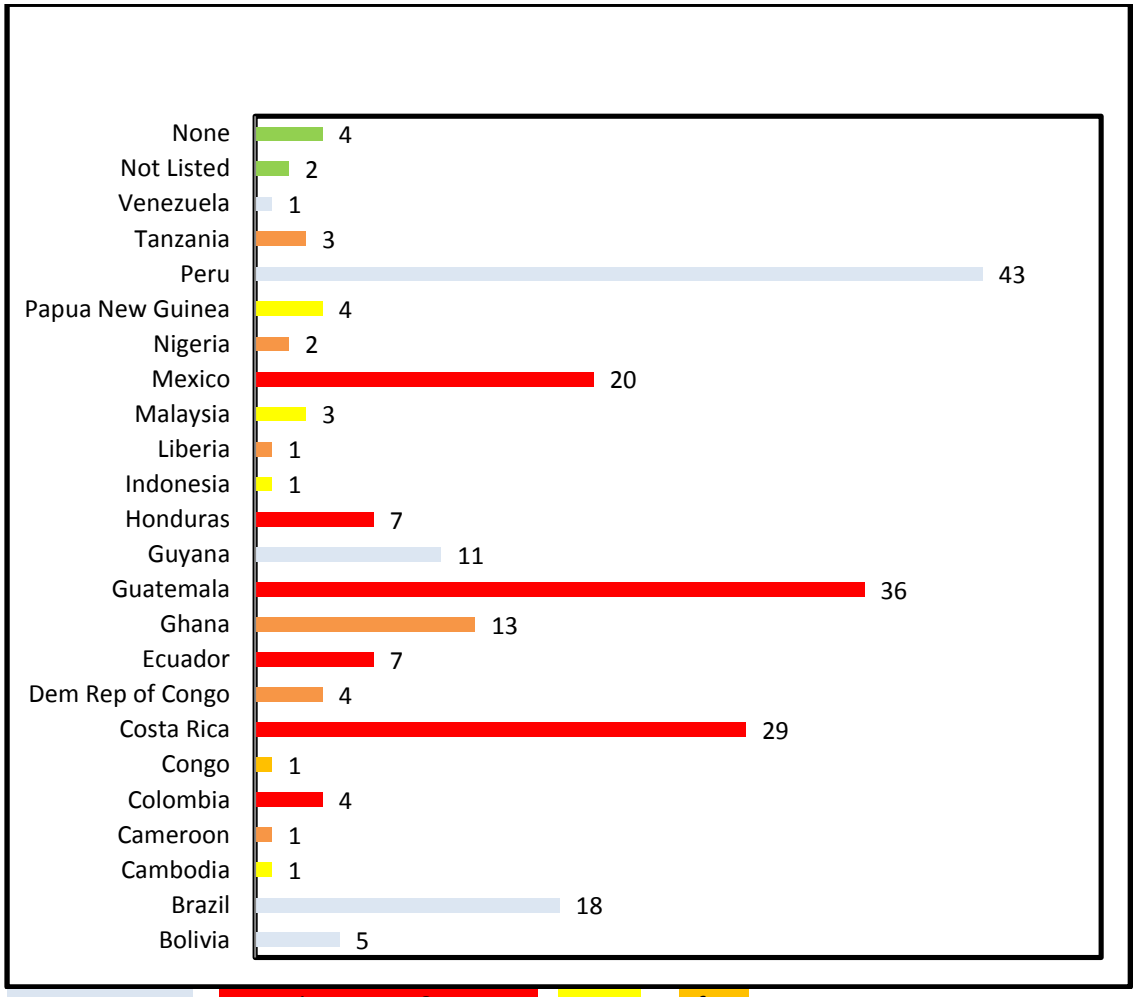
S.E Asia Pacific Is. Producers with only 3 complete responses , insufficient data.

*Statistically significant differences found only between global Producers and Consumers at 95% confidence level where indicated.

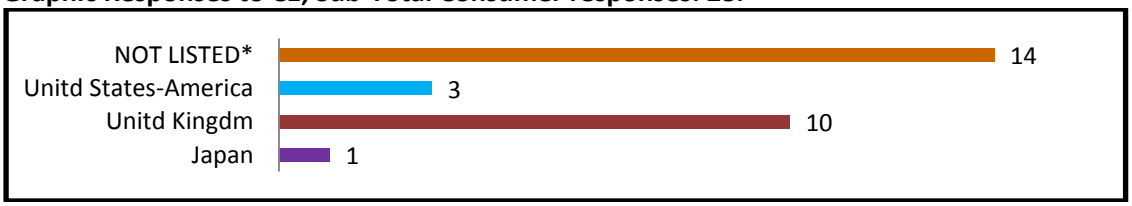
***Global Producer totals include 2 producers from outside the selected regions.

ANNEX D. COUNTRIES IDENTIFIED BY 314 COMPLETE & INCOMPLETE RESPONSES OVER 7 MINUTES LONG.

O1.Producer country you work in (*Other*)? or, P1.Producer country your operation is located in (*Producer*)? Graphic Responses to O1 or P1. Sub-Total Other+Producer responses: 221.



***C1 In what country is your main *Consumer* business located?**
Graphic Responses to C1, Sub-Total Consumer responses: 28.



*Includes 4 responses from countries not listed on the Consumer country list: Brazil, Guatemala, Chile. The remaining are respondents who chose anonymity.

Total responses to questions O1, P1, C1: 249 (Out of 314 responses over 7 minutes long).