



ISO/TC 296 "Bamboo and rattan"
Secretariat: SAC
Committee Manager: FANG Changhua Mr



TC 296 Strategic Business Plan (updated with Annexes)

Document type	Related content	Document date	Expected action
Meeting / Working documents for discussion	Meeting: VIRTUAL 26 Oct 2021 Ballot: ISO/TC 296 Strategic Business Plan 2021 (restricted access)	2021-09-14	INFO



STRATEGIC BUSINESS PLAN – ISO/TC 296

Executive summary

ISO/TC 296 concerns itself with the standardization of bamboo, rattan and derived materials in aspects including terminology, classification, specifications, test methods and quality requirements. It excludes the bamboo and rattan related standards being developed by ISO/TC 6 Paper, board and pulps, ISO/TC 34 Food products, ISO/TC 38 Textiles, ISO/TC 89 Wood-based panels, ISO/TC 136 Furniture, ISO/TC 165 Timber structures, ISO/TC 218 Timber, ISO/TC 219 Floor coverings and ISO/TC 287 Sustainable processes for wood and wood-based products. Bamboo and rattan are among the most important non-timber forest resources due to their fast growth, high yields and diverse end uses. Bamboo and rattan can be used in sectors like construction, furniture, home decoration, chemical industry and consumer goods, while they also play an increasingly important role in protecting the ecosystems, improving the environment and reducing poverty. In 2018, the global trade volume of bamboo and rattan products stood at approximately \$ 3.25 billion. There are over 40 bamboo and rattan producing countries, including China, India, Indonesia, the Philippines, Brazil, Ecuador, Ethiopia, Kenya, and Ghana. The main consumer markets for bamboo and rattan include the European Union, the United States, Canada, Japan, and the Republic of Korea. It is estimated that across the world more than 10 million people are employed in the bamboo and rattan sector, engaging in processing, sale and trade, around 90% of whom are located in Asia.

The establishment of internationally-accepted standards on bamboo and rattan terminology, test methods, specifications and quality based on knowledge of the R&D, processing, trade of bamboo, rattan and their products across the world is conducive to the sustainable development and effective utilization of bamboo and rattan resources.

1 Introduction

1.1 ISO technical committees and business planning

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure which forms part of a major review of business. The aim is to align the ISO work programme with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 International standardization and the role of ISO

The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: [ISO](#) (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of [IEC](#) (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of [ITU](#) (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 164 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the [International Standard](#).

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its [Technical Committees](#) are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

ISO offers also the International Workshop Agreement (IWA) as a deliverable which aims to bridge the gap between the activities of consortia and the formal process of standardization represented by ISO and its national members. An important distinction is that the IWA is developed by ISO workshops and fora, comprising only participants with direct interest, and so it is not accorded the status of an International Standard.

2 Business Environment of the ISO/TC

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

ISO's commitment to promoting sustainable economic development, the values of safety and environmental protection has close relevance to the work of ISO/TC 296. There exists a large variety of bamboo and rattan products, yet at the same time a great level of inconsistency and ambiguity as to the definitions of the terminology used in bamboo materials processing. There are cases where different products are dubbed the same name, the same product goes by different names, and concepts that are confusingly used in different parts of the world. If left undefined, these may easily lead to disputes in trade, thus potentially harming consumers' interests. International standards could help manufacturers of bamboo and rattan products to improve their products' quality and comply with the green product requirements of importing countries, serving as a boost to trade facilitation. In 2007 and 2014, the World Customs Organization added altogether 24 HS codes for bamboo and rattan commodities, covering at least 80% of all of bamboo and rattan commodities. With these newly added HS codes, international trade in bamboo and rattan products will be greatly expanded, which in turn raises higher demands for the global harmonization of product standards. Bamboo and rattan resources can be widely found in developing countries and regions; they play a unique role in poverty reduction, environment protection, and sustainable social development. The international standardization of bamboo and rattan will enhance efficient utilization of bamboo and rattan resources and reduce the consumption of timber, thus having a positive influence on protecting global forest and addressing climate change.

Bamboo forests are known as the world's second largest forest and bamboo itself is said to be the most promising plant in the 21st century. Currently, bamboo forests cover over 22 million hectares of land, increasing by 3% to 5% annually. Rattan is a climbing palm growing in tropical regions across the world, including around 600 species in 13 genera. Bamboo and rattan products are an important component of economies in the developing worlds and an important element in international trade.

The scope of this technical committee covers bamboo culms, bamboo tubes, bamboo strips, bamboo slivers, bamboo bundles, bamboo filaments, rattan palms, rattan peel as well as products made of the abovementioned materials, i.e. products made purely of bamboo, rattan and the combination of the two and products which are mainly composed of bamboo and rattan materials, including bamboo flooring, bamboo-based panels, bamboo woven products, bamboo-rattan woven products, bamboo charcoal, bamboo-rattan furniture, bamboo-rattan handicrafts and other consumer goods. However, the scope of this technical committee excludes the bamboo and rattan related standards being developed by ISO/TC 6 Paper, board and pulps, ISO/TC 34 Food products, ISO/TC 38 Textiles, ISO/TC 89 Wood-based panels, ISO/TC 136 Furniture, ISO/TC 165 Timber structures, ISO/TC 218 Timber, ISO/TC 219 Floor coverings and ISO/TC 287 Sustainable processes for wood and wood-based products.

Bamboo and rattan materials are generally dry, but may be treated with chemicals for higher resistance to insects, fungi or fire. Bamboo flooring and bamboo-based panels are the most dominant bamboo products. Bamboo flooring can be further divided into laminated bamboo floorings and bamboo scrimber floorings, both of which can be either unfaced or overlaid. Bamboo-based panels can be further divided into bamboo mat plywood, bamboo curtain plywood,

bamboo scrimber and bamboo curtain laminated panels, all of which can be either unfaced or overlaid. Bodies participating in trade in these commodities are primarily manufacturers, builders, wholesalers, and importers.

ISO/TC 296 aims to develop standards that will establish terminology for bamboo and rattan materials processing which can be consistently understood by all active and potential researchers, manufacturers, dealer and users. ISO/TC 296 aims to develop globally recognized standards of test methods for determination of the physical, mechanical, and chemical properties of bamboo and rattan materials, which will facilitate the comparison of basic properties among different species of bamboo and rattan in different countries and regions and promote the efficient utilization and processing of and research in bamboo and rattan materials. ISO/TC 296 also concerns itself with the standards related to bamboo and rattan commodities (e.g. bamboo flooring, bamboo-based panels, bamboo-rattan furniture, etc.) and featured products (e.g. bamboo and rattan woven products, bamboo cutting boards, bamboo bowls, etc.) in order to facilitate their international trade.

2.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the ISO/TC:

According to the estimation of the International Bamboo and Rattan Organization (INBAR), the global bamboo and rattan industry have an output value of around \$60 billion. China alone contributes over \$30 billion of the total global output value; other main contributors include Indonesia, Malaysia, India, Vietnam, the Philippines and Nigeria. According to UN Comtrade Database, in 2018, the world's total trade volume of bamboo and rattan products reached USD 3.25 billion. Specifically, the international trade value of bamboo products was USD 2.9 billion. Trade was divided into 10 different categories based on HS codes (see Figure 1). Of this total, bamboo kitchenware (such as chopsticks and chopping boards) and articles of daily use each accounted for 23% and 22% of total exports (USD 675 million and USD 653 million, respectively). The next largest categories were woven bamboo products (USD 367 million, 13%), bamboo shoots (334 million, 12%) and bamboo-based panels (USD 331 million, 11%). International trade of bamboo furniture (USD 172 million) and bamboo building materials (USD 166 million) each accounted for 6% of the total. Bamboo raw materials (USD 89 million), bamboo charcoal (USD 75 million) and bamboo pulp and paper products (USD 39 million) together made up a relatively small proportion of 7% of the total trade.

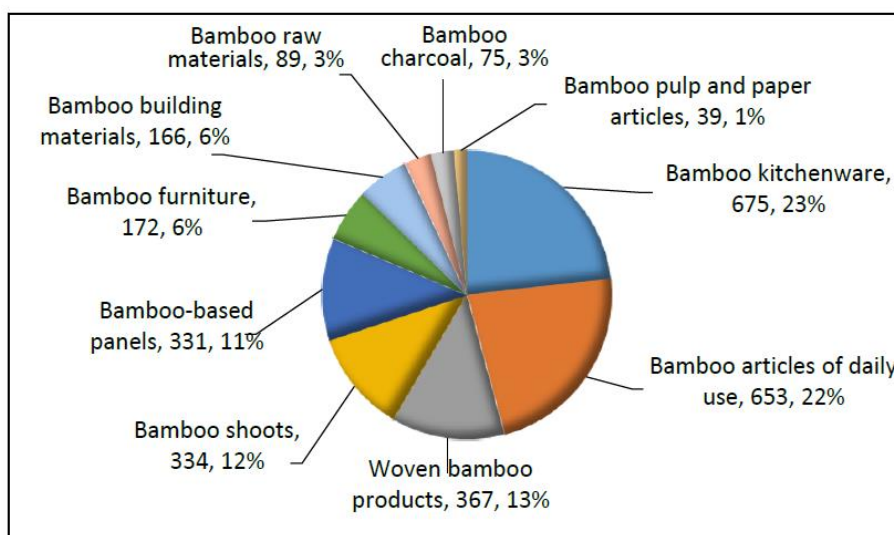


Figure 1: International trade of bamboo products in 2018 by category (unit: million USD; percent)

In 2018, the international trade value of rattan products was USD 350 million, based on three HS codes for rattan products: rattan raw materials, rattan furniture and woven rattan products (see Figure 2). Of these, woven rattan products accounted for 57% of the total, with an export value of USD 200 million. This was followed by rattan furniture (USD 130 million; 37%) and then rattan raw materials (USD 20 million; 6%). USD 450 million worth of rattan products were imported in 2018, of which the majority was rattan furniture (USD 240 million; 54%). This was followed by woven rattan products (USD 170 million; 37%) and then rattan raw materials (USD 40 million; 9%).

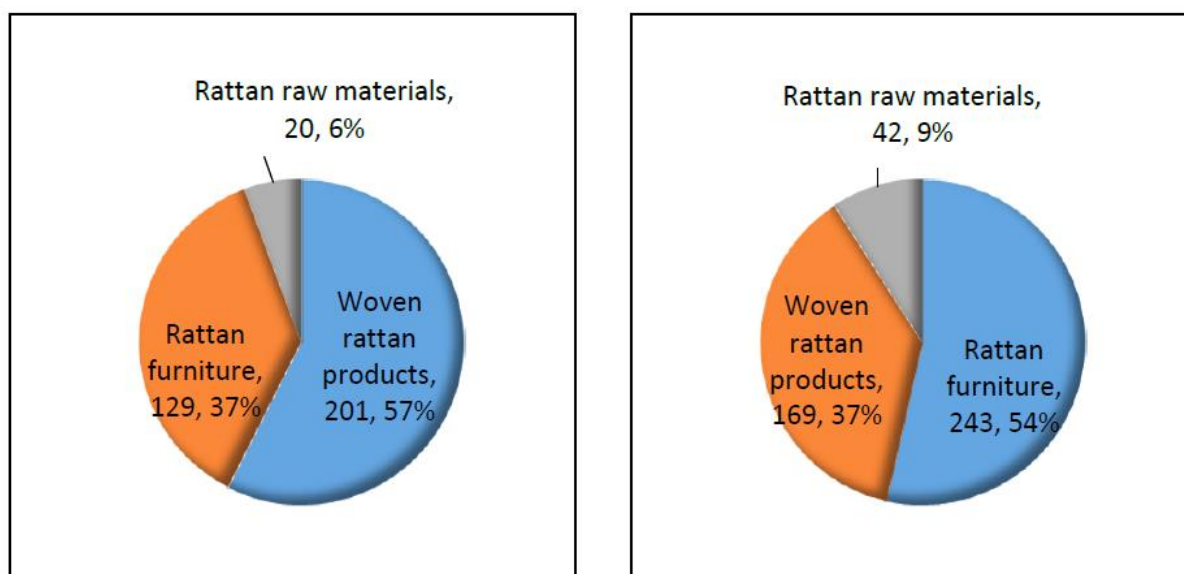


Figure 2: International trade of rattan products in 2018, by category (unit: million USD, percent)

3 Benefits expected from the work of the ISO/TC

The benefits expected from the work of TC 296 are:

- Development of internationally-accepted standards of the terminology of bamboo and rattan materials in order to reduce ambiguity and misunderstanding in trade and information exchange;
- Development of internationally-accepted standards of test methods for the determination of basic properties of bamboo and rattan materials in order to increase the comparability of test results in different countries and regions and facilitate data exchange;
- Development of standards of bamboo and rattan commodities and featured products in order to promote international trade in major bamboo and rattan products and improve market recognition for bamboo and rattan products;
- Development of ISO standards of test methods which can serve as a model for further customization by individual countries.

4 Representation and participation in the ISO/TC

4.1 Membership

P-members (17):

China, Colombia, Ecuador, Egypt, Ethiopia, France, Germany, Ghana, India, Indonesia, Italy, Jamaica, Kenya, Malaysia, Netherlands, Nigeria, Philippines

O-members (18):

Argentina, Austria, Czech Republic, Iran, Japan, Republic of Korea, Nepal, Poland, Portugal, Russian Federation, Singapore, South Africa, Spain, Sweden, Switzerland, Uganda, the United Kingdom and Viet nam.

Countries/ISO member bodies that are P and O members of the ISO committee

4.2 Analysis of the participation

TC 296 well represents all the main bamboo and rattan producing and consuming regions. China, Colombia, Ethiopia, Ghana, the Netherlands, Indonesia, Kenya, Nepal, Nigeria, Malaysia, and the Philippines are active participants. Some other countries, including Japan, Korea, Singapore, Spain, Sweden, Switzerland and the United Kingdom are following the progress of this TC. However, active participation by some other producing and consuming countries is highly encouraged. O-members that are significant producers and consumers should benefit from upgrading to P-members, such as Japan, Korea, Singapore and the United Kingdom. Brazil, the country with the most bamboo resources in America, would greatly benefit from participation as a P-member of ISO/TC 296.

The International Network for Bamboo and Rattan (INBAR) is listed as the most important liaison organization of ISO/TC 296. TC 296 puts much emphasis on building a sound working relationship with INBAR and will actively encourage INBAR to persuade all its member states to take part in the work of this technical committee.

5 Objectives of the ISO/TC and strategies for their achievement

5.1 Defined objectives of the ISO/TC

- Develop standards on the following:
terminology of bamboo and rattan materials processing, including names of the macrostructure of bamboo culms, names of defects, names of different processing units of bamboo materials, and categories and definitions of different bamboo-based panels;
a whole set of tests for determination of basic properties (physical, mechanical, chemical) for bamboo and rattan materials, including the sampling and preparation of test specimens, test methods, data handling, and test reports;
bamboo and rattan commodities and featured products, including specifications, classification, test methods, and performance indicators. In developing these standards, we will take into account, as much as possible, the effect of the different species and different economic, cultural, and environmental conditions in different parts of the world.
- Establish sound working relationships with other relevant ISO technical committees and relevant international or regional organizations.
- Identify research needs to support the work of TC 296 and bring those needs to the attention of relevant organizations.

5.2 Identified strategies to achieve the ISO/TC's defined objectives

- Identify the standards system and framework within the scope of TC 296.
- Review status of standards development of other international bodies (e.g. INBAR, CEN etc.), and of main bamboo and rattan producing or consuming countries within the scope of TC 296.
- Identify the new work items that should be fast-tracked.
- Establish liaison with other relevant ISO/TCs (e.g. ISO/TC 89, 165, 218 etc.) to avoid overlapping work.

6 Factors affecting completion and implementation of the ISO/TC work programme

Factors that might delay or prevent the completion of tasks assigned to TC 296 are:

- Some developing economies may find it difficult to send delegates to physical meetings of this ISO/TC due to lack of financial support.
- Some member bodies may fail to appoint experts qualified to participate in standards development.
- Members and experts of some developing economies may not be able to give timely feedback to the information sent by the secretariat due to limited access to the Internet and difficulties in receiving emails.
- Some member bodies might feel that they have not been adequately represented and thus, reject the standards developed by this committee.
- Cooperation may be lacking between the ISO/TC and organizations such as the International Network for Bamboo and Rattan (INBAR) and the European Committee for Standardization (CEN).

7 Structure, current projects and publications of the ISO/TC

Information on ISO online

The link below is to the TC's page on ISO's website:

[ISO/TC 296 on ISO Online](#)

Click on the tabs and links on this page to find the following information:

- About (Secretariat, Committee Manager, Chair, Date of creation, Scope, etc.)
- Contact details
- Structure (Subcommittees and working groups)
- Liaisons
- Meetings
- Tools
- Work programme (published standards and standards under development)

Reference information

[Glossary of terms and abbreviations used in ISO/TC Business Plans](#)

[General information on the principles of ISO's technical work](#)

Result of voting

Ballot Information	
Ballot reference	ISO/TC 296 Strategic Business Plan 2021
Ballot type	CIB
Ballot title	
Opening date	2021-07-31
Closing date	2021-08-28
Note	This is the draft of ISO/TC 296 Strategic Business Plan 2021. The ballot is initiated to collect comments and finalize this latest version of SBP.

Member responses:	
Votes cast (17)	China (SAC) Colombia (ICONTEC) Ecuador (INEN) Egypt (EOS) Ethiopia (ESA) France (AFNOR) Germany (DIN) Ghana (GSA) India (BIS) Indonesia (BSN) Italy (UNI) Jamaica (BSJ) Kenya (KEBS) Malaysia (DSM) Netherlands (NEN) Nigeria (SON) Philippines (BPS)
Comments submitted (2)	Russian Federation (GOST R) United Kingdom (BSI)
Votes not cast (0)	

Questions:	
Q.1	"Do you approve of this draft as the updated strategic business plan of ISO/TC 296?"

Votes by members	Q.1
China (SAC)	Yes
Colombia (ICONTEC)	Yes
Ecuador (INEN)	Yes
Egypt (EOS)	Yes

Ethiopia (ESA)	Yes
France (AFNOR)	Abstain
Germany (DIN)	Abstain
Ghana (GSA)	Yes
India (BIS)	Yes
Indonesia (BSN)	Yes
Italy (UNI)	Abstain
Jamaica (BSJ)	Yes
Kenya (KEBS)	Yes
Malaysia (DSM)	Yes
Netherlands (NEN)	Yes
Nigeria (SON)	Yes
Philippines (BPS)	No

Answers to Q.1: "Do you approve of this draft as the updated strategic business plan of ISO/TC 296?"		
13 x	Yes	China (SAC) Colombia (ICONTEC) Ecuador (INEN) Egypt (EOS) Ethiopia (ESA) Ghana (GSA) India (BIS) Indonesia (BSN) Jamaica (BSJ) Kenya (KEBS) Malaysia (DSM) Netherlands (NEN) Nigeria (SON)
1 x	No	Philippines (BPS)
3 x	Abstain	France (AFNOR) Germany (DIN) Italy (UNI)

Comments from Voters		
Member:	Comment:	Date:
Philippines (BPS)	<i>Comment File</i>	2021-08-28 17:33:59
CommentFiles/ISO_TC 296 Strategic Business Plan 2021_BPS.doc		

Comments from Commenters		
Member:	Comment:	Date:

Russian Federation (GOST R)	<i>Comment</i>	2021-08-24 23:09:19
Yes.approve		
United Kingdom (BSI)	<i>Comment</i>	2021-07-31 20:50:56
Abstain		

Template for comments and secretariat observations

Date: August 2021	Document: ISO/TC 296	Project: N138
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MB/NC ¹	Line number (e.g. 17)	Clause/Subclause (e.g. 3.1)	Paragraph/Figure/Table/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
PH/B PS			Executive Summary	ed	Lengthy paragraph	<p>Change to:</p> <p>Bamboo and rattan are among the most important non-timber forest resources due to their fast growth, high yields and diverse end uses. It can be used in sectors like construction, furniture, home decoration, chemical industry and consumer goods, while they also play an increasingly important role in protecting the ecosystems, improving the environment and reducing poverty.</p> <p>In 2018, the global trade volume of bamboo and rattan products stood at approximately \$ 3.25 billion. There are over 40 bamboo and rattan producing countries, including China, India, Indonesia, the Philippines, Brazil, Ecuador, Ethiopia, Kenya, and Ghana. The main consumer markets for bamboo and rattan include the European Union, the United States, Canada, Japan, and the Republic of Korea. It is estimated that across the world more than 10 million people are employed in the bamboo and rattan sector, engaging in processing, sale and trade, around 90% of whom are located in Asia.</p>	Partially accepted. Bamboo and rattan are two separate plants, therefore should not be referred to as 'it'.
PH/B PS		2.1		ed		<p>Change to:</p> <p>Bamboo and rattan resources can be widely found in developing countries and regions; they play a unique role in poverty reduction, environment protection, and sustainable social development. The international standardization of bamboo and rattan will enhance efficient utilization of bamboo and rattan resources and reduce the consumption of timber, thus having a positive influence on protecting global forest and addressing climate change.</p>	Accepted.
PH/B PS		2.1	Para 4	ed	The current description of rattan is too general and ambiguous. Rattan is a group of plant growing in tropical regions across the world	<p>Change to:</p> <p>Rattan is a climbing palm growing in tropical regions across the world.</p>	Accepted.
PH/B PS		2.1	Para 5	ed	Technical rattan is not a vine hence, it would be misleading to the readers. Changing vine to Palm is more appropriate.	<p>Change to :</p> <p>Rattan palms</p>	Accepted.
PH/B		2.1	IST/TC 296	ge	The term processing should be inserted so that the	Insert:	Accepted.

¹ MB = Member body / NC = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

² Type of comment: ge = general te = technical ed = editorial

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PS			aims to: 2 nd objective		processing techniques for a particularly product as well as in the preparation of raw materials should be standardized to have a uniform product.	Develop globally recognized standards..... and promote efficient utilization, processing of and research in bamboo and rattan	
		2.1		ed	Lengthy paragraph	<p>The scope of this technical committee covers bamboo culms, bamboo tubes, bamboo strips, bamboo slivers, bamboo bundles, bamboo filaments, rattan palms, rattan peel as well as products made of the abovementioned materials, i.e. products made purely of bamboo, rattan and the combination of the two and products which are mainly composed of bamboo and rattan materials, including bamboo flooring, bamboo-based panels, bamboo woven products, bamboo-rattan woven products, bamboo charcoal, bamboo-rattan furniture, bamboo-rattan handicrafts and other consumer goods.</p> <p>However, the scope of this technical committee excludes the bamboo and rattan related standards being developed by ISO/TC 6 Paper, board and pulps, ISO/TC 34 Food products, ISO/TC 38 Textiles, ISO/TC 89 Wood-based panels, ISO/TC 136 Furniture, ISO/TC 165 Timber structures, ISO/TC 218 Timber, ISO/TC 219 Floor coverings and ISO/PC 287 Chain of custody of wood and wood-based products.</p>	Accepted.
		2.1		ed		<p>Change to:</p> <p>ISO/TC 296 aims to develop:</p> <ul style="list-style-type: none"> ○ Standards that will establish terminology for bamboo and rattan materials processing which can be consistently understood by all active and potential researchers, manufacturers, dealer and users. ○ Globally recognized standards of test methods for determination of the physical, mechanical, and chemical properties of bamboo and rattan materials, which will facilitate the comparison of basic properties among different species of bamboo and rattan in different countries and regions and promote the efficient utilization, processing of and research in bamboo and rattan materials. ○ Standards related to bamboo and rattan commodities (e.g. bamboo flooring, bamboo-based panels, bamboo-rattan furniture, etc.) 	Accepted.

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

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MB/NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
						and featured products (e.g. bamboo and rattan woven products, bamboo cutting boards, bamboo bowls, etc.) in order to facilitate international trade.	
		2.2		ed	Lengthy paragraph	<p>According to the estimation of the International Bamboo and Rattan Organization (INBAR), the global bamboo and rattan industry have an output value of around \$60 billion. China alone contributes over \$30 billion of the total global output value; other main contributors include Indonesia, Malaysia, India, Vietnam, the Philippines and Nigeria.</p> <p>According to the 2018 UN Comtrade Database, the world's total trade volume of bamboo and rattan products reached USD 3.25 billion. Specifically, the international trade value of bamboo products was USD 2.9 billion. Trade was divided into 10 different categories based on HS codes (see Figure 1). Of this total, bamboo kitchenware (such as chopsticks and chopping boards) and articles of daily use each accounted for 23% and 22% of total exports (USD 675 million and USD 653 million, respectively).</p> <p>The next largest categories were bamboo woven products (USD 367 million, 13%), bamboo shoots (334 million, 12%) and bamboo-based panels (USD 331 million, 11%). International trade of bamboo furniture (USD 172 million) and bamboo building materials (USD 166 million) each accounted for 6% of the total. Bamboo raw materials (USD 89 million), bamboo charcoal (USD 75 million) and bamboo pulp and paper products (USD 39 million) together made up a relatively small proportion of 7% of the total trade.</p>	Not accepted. 2018 refers to the year of the data, not the year the report is published.
		2.2	Fig 1	ed	Put space between Figure 1 and the next paragraph	<p>Figure 1: International trade of bamboo products in 2018 by category (unit: million USD; percent)</p> <p>In 2018, the international trade value of rattan products was USD 350 million, based on three HS codes for rattan products: rattan raw materials, rattan furniture and woven rattan products (see Figure 2). Of these, woven rattan products accounted for 57% of the total, with an export value of USD 200 million. This was followed by rattan furniture (USD 130 million; 37%) and then rattan raw materials (USD 20 million; 6%). USD 450 million</p>	Accepted.

¹ MB = Member body / NC = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

² Type of comment: ge = general te = technical ed = editorial

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						worth of rattan products were imported in 2018, of which the majority was rattan furniture (USD 240 million; 54%). This was followed by woven rattan products (USD 170 million; 37%) and then rattan raw materials (USD 40 million; 9%).	
		3		ed		Change to: <ul style="list-style-type: none"> Development of internationally-accepted standards of test methods for the determination of basic properties of bamboo and rattan materials in order to increase the comparability of test results in different countries and regions and facilitate data exchange; 	Accepted.
		4.2		ed		Change to: TC 296 well represents all the main bamboo and rattan producing and consuming regions. China, Colombia, Ethiopia, Ghana, the Netherlands, Indonesia, Kenya, Nepal, Nigeria, Malaysia, and the Philippines are active participants. Some other countries, including Japan, Korea, Singapore, Spain, Sweden, Switzerland and the United Kingdom are following the progress of this TC. However, active participation by some other producing and consuming countries is highly desirable encouraged . O-members that are significant producers and consumers should benefit from upgrading to P-members, such as Japan, Korea, Singapore and the United Kingdom. Brazil, the country with the most bamboo resources in America, would greatly benefit from participation as a P-member of ISO/TC 296.	Accepted.
		5.1		ed		<ul style="list-style-type: none"> Develop standards on the following: <ul style="list-style-type: none"> terminology of bamboo and rattan materials processing, including names of the macrostructure of bamboo culms, names of defects, names of different processing units of bamboo materials, and categories and definitions of different bamboo-based panels. a whole set of tests for determination of basic properties (physical, mechanical, chemical) for bamboo and rattan materials, including the sampling and preparation of test specimens, test methods, data handling, and test reports. bamboo and rattan commodities and 	Accepted.

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

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MB/NC ¹	Line number (e.g. 17)	Clause/Subclause (e.g. 3.1)	Paragraph/Figure/Table/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
						<p>featured products, including specifications, classification, test methods, and performance indicators. In developing these standards, we will take into account, as much as possible, the effect of the different species and different economic, cultural, and environmental conditions in different parts of the world.</p> <ul style="list-style-type: none"> • Establish sound working relationships with other relevant ISO technical committees and relevant international or regional organizations. • Identify research needs to support the work of TC 296 and bring those needs to the attention of relevant organizations. 	
		6		ed		<p>Change to:</p> <p>Factors that might delay or prevent the completion of tasks assigned to TC 296 are:</p> <ul style="list-style-type: none"> • Some developing economies may be frequently absent in the technical committee meetings due to lack of financial support. • Some member bodies may fail to produce experts qualified to participate in standards development. • Members and experts of some developing economies may not be able to give timely feedback to the information sent by the secretariat due to limited access to the Internet and difficulties in receiving emails. • Some member bodies might feel that they have not been adequately represented and thus, reject the standards developed by this committee. • Cooperation may be lacking between the ISO/TC and organizations such as the International Network for Bamboo and Rattan (INBAR) and the European Committee for Standardization (CEN). 	<p>Not accepted. Changed to: Some developing economies <i>may find it difficult to send delegates to physical meetings</i> of this ISO/TC due to lack of financial support.</p>

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

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