

# LEGAL PROTECTION OF SUSTAINABLE DESIGN IN COLOMBIA

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## ABSTRACT

Product configuration is abandoning traditional logics such as mass production, programmed obsolescence and negligent quality. We are facing a transformation process which commits towards environmental conservation, poverty rates reduction and productivity increase on diverse areas. In order to accomplish these objectives, worldwide tendency is relying on sustainable design. Accordingly, Colombia is promoting sustainable design and thus it recognizes the need of jurisdictional protection to its creations through intellectual property rights.

*Keywords:* Design; Sustainable Design; Intellectual Property Rights; Traditional Knowledge; Patents; Industrial Design.

## LA PROTECCIÓN JURÍDICA DEL DISEÑO SOSTENIBLE EN COLOMBIA

## RESUMEN

La configuración de productos está abandonando la lógica tradicional de la producción en masa, de la obsolescencia programada y de que la calidad no cuenta. Nos enfrentamos a un proceso de transformación que reconoce la necesidad de preservar el ambiente, de reducir los niveles de pobreza y de aumentar la productividad en

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sectores diversos. Para cumplir estos objetivos, la tendencia mundial es apostar al concepto de sostenibilidad, el cual se extiende al mundo del diseño. Colombia promueve el diseño sostenible y reconoce la necesidad de proteger jurídicamente a este tipo de creaciones a través de la propiedad intelectual.

*Palabras clave:* Diseño; Diseño sostenible; Propiedad intelectual; Conocimiento tradicional; Patentes; Diseño industrial.

## INTRODUCTION

Globally, we are facing a transformation process that commits with environmental conservation, poverty rates reduction and productivity increase on diverse areas. In order to accomplish these objectives, countries are gestating new philosophical orientations supported by sustainability concept. In fact, product configuration is directed by protectionist environmental considerations, human factor and economics, that consequently leave traditional perspectives such as mass production, product obsolescence and negligent quality<sup>1</sup>.

Colombia is not indifferent to this tendency, therefore local legislation and policies are being structured to promote sustainability in different sectors (e.g, construction and fashion). In this context, sustainable design appears as a friendly answer to mitigate adverse effects caused by human input. Its production is the result of human creativity reflected on innovative and creative processes, which deserve legal protection headed by intellectual property. To analyze this issue, this article (1) studies the concept of sustainable design; (2) studies its interface with intellectual property law; and (3) aims to draw conclusions.

### I. SUSTAINABLE DESIGN

In Colombia, there is a generalized use of the expression “sustainable design” without any precise legal definition. Consequently, the constitution of this definition has been doctrinal as it evokes different meanings. On the one hand, “design” encloses different connotations, for instance, a building or a sketch, the project or plan that configures something, the original concept of an object or a piece, the shape of a designed object, etcetera<sup>2</sup>. On the other hand, “sustainable” alludes to something “that can stand through long time without depleting resources or causing deep environmental damaging”<sup>3</sup>.

1 PAPANUKA, VICTOR. *Design for the real world*. Second edition. Academy Chicago Publishers, 2005.

2 Diccionario Real de la Academia Española. [Recurso Electrónico] Disponible en: <https://dle.rae.es/dise%C3%B1o?m=form> Consultado el 10 de febrero de 2020.

3 Diccionario Real de la Academia Española. [Recurso Electrónico] Disponible en: <https://dle.rae.es/sostenible?m=form> Consultado el 10 de febrero de 2020.

Then, the fusion between “design” and “sustainability” indicates the processes in which the conception, development, manufacturing and offering of a product transforms into an adequate human, ecological and economic context. In other words, it refers to processes that do not waste resources<sup>4</sup>.

It seems that sustainable design is assimilated as eco-design or ecological design. However, involving the term “sustainability” makes the definition wider because “it contemplates social and economic backgrounds of employed materials, design and production processes”<sup>5</sup>. For instance, a recycled paper will be considered as a “sustainable design” when its “design” fully encompasses a 100% recycled paper, a zero-emission production process and it improves work and lifestyle of the involved workers<sup>6</sup>.

Having in mind that sustainable design results from designers’ creativity, it becomes a matter of legal protection. Hence so, Colombian law addresses intellectual property as the discipline in charge of recognizing this effort<sup>7</sup>. Therefore, it results necessary studying sustainable design protection in the light of the intellectual property regime (2).

## 2. INTELLECTUAL PROPERTY REGIME

Due to the multiple definitions attributed to sustainable design, there are diverse intellectual property rights that offer design protection. These are oriented from copyright (I) to industrial property (II).

### I. SUSTAINABLE DESIGN AND COPYRIGHT

Copyright has been defined as the discipline regulating the relationship between an author and its work, and simultaneously the latter with society<sup>8</sup>. The protected object is the “work” conceived as the intellectual original creation. This artistic, scientific, or literary piece is susceptible of being reproduced or disclosed by every form or mean<sup>9</sup>.

Sustainable design can be protected through this discipline by means of the work’s concept. The difficulty then is identifying the kind of work that protects it. According to Colombian legislation, sustainable design can be protected over two types of works, they are works of art or works of applied art. The first ones refer to those creations that appeal to the beholder’s aesthetical sense, for instance,

4 Grafous. *Diseño sostenible o ecodiseño*. [Recurso electrónico] Disponible en: <https://www.grafous.com/disenho-sostenible-o-ecodisenho/> Consultado el 10 de febrero de 2020.

5 *Ibidem*.

6 *Ibidem*.

7 Rengifo, Ernesto. *La propiedad intelectual. El moderno derecho de autor*. Universidad Externado de Colombia, Bogotá, 1997.

8 *Ibidem*.

9 Decisión Andina 351 de 1993. Artículo 3.

paintings, drawings, engravings and lithography. Photographs, architectural works, and audiovisuals are not comprehended by this definition<sup>10</sup>. The second type of works are defined as means of an artistic creation with utilitarian functions or incorporated in a useful article, whether a work of handcraft or one produced on an industrial scale<sup>11</sup>.

Even though a work of art has a close relationship with sustainable design, its major application has been manifested on applied Colombian arts, for instance, sustainable jewelry design. Zoken Joyeros and Flor Amazona are jewelry enterprises associated with Colombian Indigenous communities in order to design and manufacture collections and lines with ethnical value. As a result, economical incomes are generated for these populations<sup>12</sup>.

These examples illustrate that designs can be protected by copyrights. However, it evokes questions in regard to traditional knowledge. Specifically, on the ownership of those creations that involve traditional knowledge and sustainability as it will be studied later.

Traditional Knowledge has been defined as an ethnical intellectual activity manifested on social, cultural, environmental and politic spheres throughout generations. Therefore, it constitutes intangible cultural heritage, that should be protected for the best of cultural identity promotion<sup>13</sup>.

It is protected against abusive usage or misappropriation for it contains rights over communities' life itself and it reflects their relationship with earth, ancestors, cosmogony and their own history<sup>14</sup>.

Within traditional knowledge there are traditional cultural expressions such as music, dances, arts, designs, signs and symbology, interpretations, ceremonies, architectural forms, artisanal objects, folktales or many other artistic or cultural expressions<sup>15</sup>.

Difficulties around traditional knowledge and copyrights turn around its ownership, this means, to whom copyrights belong? Do they belong to the sustainable designer? To the Indigenous community? Or can it be considered as a co-creation event? The enforcement and regulation of this type of rights are complex. This is due to the contradiction between the decision 351 "Common provisions on Copyright and Neighboring rights" and the law 23 of 1982. The decision remains silent about traditional cultural expressions, meanwhile, the law 23 of 1982 estab-

10 *Ibidem*.

11 *Ibidem*.

12 Cámara de Comercio de Bogotá. Marcas sostenibles en el mercado de las joyas. [Recurso Electrónico] Disponible en: <https://www.ccb.org.co/Clusters/Cluster-de-Joyeria-y-Bisuteria/Noticias/2016/Septiembre-2016/Marcas-sostenibles-en-el-mercado-de-las-joyas> Consultado el 10 de febrero de 2020.

13 Corte Constitucional. Tutela T-477-12 Sentencia de 25 de junio de 2012. M.P.: Adriana María Guillén Exp. T-3.363.570

14 *Ibidem*.

15 Organización Mundial de la Propiedad Intelectual. Expresiones Culturales Tradicionales. [Recurso Electrónico] Disponible en: <https://www.wipo.int/tk/es/folklore/> Consultado el 10 de febrero de 2020.

lishes specific rules about them, signaling that traditional and folklore pieces from unknown authors belong to a public domain<sup>16</sup>. In the same manner, it foresees that indigenous art in all its manifestations, including dance, songs, handicrafts, drawings, sculptures, belong to cultural patrimony<sup>17</sup>. In consequence, questions turn once more around the object of protection and its ownership.

To sum up, sustainable design can be widely protected by copyrights via works of arts or work of applied arts except when they involve traditional knowledge and traditional cultural expression. Therefore, it results necessary to observe another mean of protection from industrial property perspective (II).

## II. SUSTAINABLE DESIGN AND INDUSTRIAL PROPERTY

Industrial property protects new creations and distinctive signs. Several cases of sustainable design might be protected through this discipline; therefore, this chapter will be analyzing sustainable design bonds with new creations (a) and distinctive signs (b).

### *A. New creations*

Innovations refer to something new that improves a product, a process or a service<sup>18</sup>. Its nature can be technical or aesthetic, which can mean, they solved a problem in the state of art, or it gave an added value to the product features.

The innovation legal protection is framed by new creations, and sustainable design its part of it because it has a direct relationship with patents (i) and industrial designs (ii) as well.

#### i. Patents

Patents are defined “as a privilege granted by the state to recognize inventor’s investment and effort to accomplish technical solutions that benefit humanity. Such privilege consists on an inventor’s right to exclusively exploit its creation for a period of time”<sup>19</sup>.

In Colombia, the regulation of patents is foreseen in the industrial property common regime 486 of 2000. This law establishes patentability requirements, rules related to ownership and its enforcement, among others. Patent’s recognition has

<sup>16</sup> Ley 23 de 1982. Artículo 187

<sup>17</sup> Ley 23 de 1982. Artículo 189

<sup>18</sup> Organización Mundial de la Propiedad Intelectual. La Innovación y la Propiedad Intelectual. [Recurso Electrónico] Disponible en: [https://www.wipo.int/ip-outreach/es/ip-day/2017/innovation\\_and\\_intellectual\\_property.html](https://www.wipo.int/ip-outreach/es/ip-day/2017/innovation_and_intellectual_property.html) Consultado el 10 de febrero de 2020.

<sup>19</sup> Superintendencia de Industria y Comercio. Patentes [Recurso Electrónico] Disponible en: <https://www.sic.gov.co/patentes> Consultado el 10 de febrero de 2020.

benefits for the inventor, according to this, he will be able to exploit them for a 20 years term after solicitude.

Sustainable design can be protected by patents provided that it offers innovative solutions to unsolved problems that haven't found any scape on techniques development. "Green technologies" applied to products or services are a clear exemplification of inventions bonded to sustainable design that can be protected by patents<sup>20</sup>.

Green technology has been defined in wide terms and it is related to the establishment of friendly solutions for the environment. Its objective is to protect the environment and diminish damages caused by products and human technology<sup>21</sup>. Construction is a clear representation inspired by this philosophy and it is associated to sustainable design. Precisely, on each phase of construction, green technology plays a determining role in the design and creation of new materials and systems to execute operations considered as sustainable or energetically sufficient. Solar energy, biodegradable materials, intelligent amenities, refrigerating rooftops, efficient technologies to save water, among many others are examples of sustainable design applied to buildings<sup>22</sup>.

Another manifestation happens in the fashion world. Dresses, shoes and accessories are being manufactured, commercialized and employed in a sustainable way, or in other words, considering environmental and socio-economic aspects. The objective must be reducing environmental impacts into the life cycle of products by controlling the usage of natural resources such as water, energy, land, environment, plants, animals, biodiversity, ecosystems, etc.<sup>23</sup>

In order to obtain patent protection, sustainable designed products must fulfill requirements such as novelty, inventive step and utility. According to the regime 486 "an invention may be deemed new when not included in the state of the art". In this sense, this law defines novelty in the following terms:

Article 16. An invention may be deemed new when not included in the state of the art.

The state of the art comprises everything that has been made available to the public by written or oral description, use, marketing, or any other means prior to the filing date of the patent or, where appropriate, of the priority claimed.

20 FIGUEROA HERNÁNDEZ, ARIADNA y HERNÁNDEZ BENÍTEZ, YENDRY. "Los derechos de propiedad intelectual y el medioambiente: las negociaciones sobre el cambio climático", *Revista La Propiedad Inmaterial* n.º 28, Universidad Externado de Colombia, julio-diciembre 2019, pp. 43-72.

21 GHADIYALI TEJASKUMAR R.\*1 and KAYASTH MANISH M.2 Contribution of Green Technology Insustainable Development of Agriculture Sector Journal of Environmental Research And Development Vol. 7 n.º 1A, July-September 2012.

22 Green Building Solution. *Sustainable Design* [Recurso electrónico] Disponible en: <https://www.greenbuildingsolutions.org/sustainable-design/> Consultado el 10 de febrero de 2020.

23 Green Strategy. *What is sustainable fashion*. [Recurso electrónico] Disponible en: <https://www.greenstrategy.se/sustainable-fashion/what-is-sustainable-fashion/> Consultado el 10 de febrero de 2020.

Solely for the purpose of determining novelty, the contents of a patent application pending before the competent national office and having a filing date or priority application date earlier than the date of the patent or patent priority application under examination, shall likewise be considered part of the state of the art, provided that the said contents are included in the earlier application when published or that the period stipulated in Article 40 has concluded<sup>24</sup>.

Regarding to inventive step, article 18 of industrial property regime establishes:

Article 18. - An invention shall be regarded as involving an inventive step if, for a person in the trade with average skills in the technical field concerned, the said invention is neither obvious nor obviously derived from the state of the art<sup>25</sup>.

Utility supposes that the object could be produced or used in any type of industry. In this orientation article 19 of common intellectual property regime disposes:

Article 19. An invention shall be regarded as industrially applicable when its subject matter may be produced or used in any type of industry; industry being understood as that involving any productive activity, including services<sup>26</sup>.

In the event that sustainable design innovations had accomplished the listed requirements, they can be protected through patents. Precisely, in Colombia sustainable design patents had been already provided to a biodegradable plate elaborated after tapioca flour<sup>27</sup>, and to a biodegradable bag for special type of coffee packaging<sup>28</sup>.

24 RENGIFO, ERNESTO y DÍAZ, LINA, *La Novedad. En Derecho de Patentes*, Universidad Externado de Colombia, Bogotá, 2016.

25 “Se supone que la persona del oficio normalmente versada en la materia tiene los conocimientos medios en el campo de la técnica específico de la invención, pero no es especializado, ejerce normalmente el oficio, tiene las competencias normales y está al corriente de los conocimientos generales comunes en la técnica (información contenida en monografías, diccionarios, libros de texto, etc.), en la fecha de presentación o de prioridad de la solicitud. Es quien, además, ha tenido acceso a los conocimientos del ‘estado de la técnica’, en particular, los documentos citados en el informe de búsqueda internacional y ha tenido a su disposición los medios y capacidades normales para la experimentación de rutina”. Superintendencia de Industria y Comercio. Guía para examen de solicitudes de patente de invención modelos de utilidad. sic. Bogotá. 2012 p. 96. Ver también MANUEL GUERRERO. “El nivel inventivo” en *Derecho de Patentes*. Universidad Externado de Colombia. Bogotá. 2016. p.209.

26 “El artículo 19 de la Decisión Andina 486 plantea un criterio amplio sobre lo que significa “aplicación industrial”, incluyéndose los servicios. Ello fue complementado por el Tribunal Andino de Justicia al considerar que el propósito de la patentabilidad de una invención radica en ser un estímulo para el desarrollo y crecimiento industrial”. Herrera, Luisa. *Aplicación Industrial. En Derecho de Patentes*, Universidad Externado de Colombia, Bogotá, 2016, p. 260.

27 Superintendencia de Industria y Comercio. Delegatura de Propiedad Industrial. Exp. 16004093.

28 Superintendencia de Industria y Comercio. Delegatura de Propiedad Industrial. Exp. 16004103.

However, this technology development can lead to biological or genetical resources of Colombian territory use, and consequently they can be associated to Indigenous traditional knowledge, thus it is necessary to warn that these elements own a special status under legal protection. In effect, article 3 of industrial property regime 460 de 2000 establishes:

Article 3. The Member Countries shall ensure that the protection granted to intellectual property elements shall be accorded while safeguarding and respecting their biological and genetic heritage, together with the traditional knowledge of their indigenous, African American, or local communities. As a result, the granting of patents on inventions that have been developed on the basis of material obtained from that heritage or that knowledge shall be subordinated to the acquisition of that material in accordance with international, Andean Community, and national law.

The Member Countries recognize the right and the authority of indigenous, African American, and local communities in respect of their collective knowledge.

The provisions of this Decision shall be applied and interpreted in such a way that they do not contravene the stipulations of Decision 391 and its effective amendments.

This rule means that if the invention object of the patent has close bonds to a biological and genetical heritage of the nation, or if it is related to traditional knowledge, then the patent is contingent to be respected under international, community and national legal law. This norm aims to avoid biopiracy, which is a behavior of “non-authorized third parties coaxing genetical resources and traditional knowledge to use them in agriculture or in some areas like health or new technologies’ development for biodiversity conservancy. This could be done by mere appropriation or obtaining Intellectual property rights without the due identity of knowledge or resources origins”<sup>29</sup>.

Legal regulation of Nation’s biological and genetical patrimony, as well as traditional knowledge from international perspective has been established through different instruments. This article aims to highlight the biological diversity agreement (CDB)<sup>30</sup> and Nagoya protocol on Access and Benefit Sharing (ABS)<sup>31</sup>.

29 ZACGARY, HILLER, “The promise & peril of trips, note, currents”, en Int’l Trade L.J., Summer 2009. Citado por RENGIFO, ERNESTO y otros. “La corrupción en el ámbito de la propiedad intelectual”, en *Corrupción en Colombia*. Tomo II. Universidad Externado de Colombia. Bogotá. 2018. p. 368

30 The CDB “enhanced the States obligation of ‘respecting, preserving and maintaining knowledge, innovations and practices of indigenous communities and locals concerning to conservation and sustainable use of biological diversity”. Secretaría del Convenio sobre la Diversidad Biológica. “Protocolo de Nagoya sobre Acceso a los recursos genéticos y participación justa y equitativa en los beneficios que se deriven de su utilización al convenio sobre Diversidad Biológica”. Programa de las Naciones Unidas para el Medio Ambiente, Canadá, 2011, p. 1.

31 The ABS “notoriously impules the third objective of the agreement, thus it pro-



Colombia is part of these international treaties<sup>32</sup>. However, it results necessary signaling that the “sala civil y de consulta del Consejo de Estado” suspended the adoption process of approbatory law for Nagoya protocol on Access and Benefit Sharing (ABS), because a previous consultation of the involved ethnic communities is compulsory<sup>33</sup>.

From a regional perspective, Colombia “has the responsibility of guaranteeing the protection given through industrial property safeguards and respects biological and genetic patrimony, besides traditional knowledge of indigenous, Afro-American and local communities. Therefore, the access and acquisition of genetic material must be respectful to an international, communitarian and national law”<sup>34</sup>.

In this orientation, article 26 of intellectual property regime 486 establishes that, when a solicitude of patents is funded in this type of resources, it is required a copy of the contract for access<sup>35</sup>. Justly, this norm foresees:

Article 26. Applications for patents shall be filed with the competent national office and shall contain:

h) a copy of the contract for access, if the products or processes for which a patent application is being filed were obtained or developed from genetic resources or by-products originating in one of the Member Countries;

if applicable, a copy of the document that certifies the license or authorization to use the traditional knowledge of indigenous, African American, or local communities in the Member Countries where the products or processes whose protection is being requested was obtained or developed on the basis of the knowledge originating in any one of the Member Countries, pursuant to the provisions of Decision 391 and its effective amendments and regulations;

These rules mean that for the patent solicitude it is required the access contract or license to use traditional knowledge from indigenous communities. The access contract is being defined as an “agreement between the Competent National Authority in representation of the State, and a person that establishes the terms and conditions for access to genetic resources, their by-products and, if applicable,

portionates a solid base to obtain high juridical certainty and transparency for suppliers and users of genetical resources” *Ibidem*. p. 375.

32 Colombia ya suscribió al protocolo de Nagoya, pero aún no ha sido ratificado. Al respecto ver ROJAS BLANCO, DIANA LORENA; “Vicisitudes del Protocolo de Nagoya”, *Revista Gestión y Ambiente* Vol. 16 (3): 17-23. Diciembre de 2013, p. 20.

33 LIZARAZO-CORTÉS, ÓSCAR y otros, “Contratos de acceso a recursos genéticos y solicitudes de patente en Colombia: Mitos y realidades”, *Rev. colomb. biotecnol* vol.21 n.º 1 Bogotá Jan./June 2019.

34 RENGIFO, ERNESTO y otros. “La corrupción en el ámbito de la propiedad intelectual”, *op. cit.*, p. 376.

35 *Ibidem*, p. 376.

the associated intangible component.”<sup>36</sup>. The competent authority for Colombian case is the “Ministerio de Medio Ambiente y Desarrollo Territorial”. In the event of non-presenting this document, the patent will not be granted, or it will be invalidated in accordance with the article 75 of industrial property regime 486.

Concerning the traditional knowledge of indigenous or ethnic communities<sup>37</sup>, Constitutional court has been clear in several cases<sup>38</sup> to signal that with the purpose of protecting this kind of knowledge, it is necessary to request previous consultation to the community as well as their consent for the access related to genetical resources<sup>39</sup>.

To conclude, green technology manifested in sustainable designs can be protected through patents. Thus, if it is linked to biological resources, biological patrimony of Colombian territory or traditional knowledge it is required an access contract or a license for traditional knowledge use to be susceptible of patenting. However, it must be warned that patents are not the only way to protect sustainable designs. Industrial design can also be an idoneal instrument to protect the form or appearance of a sustainable product (ii).

## ii. Industrial Designs

Industrial design aims to protect designer’s creative process applied to industry. The innovative product is destined to a final consumer<sup>40</sup>. Article 113 of industrial property regime declares “the particular appearance of a product that results from any arrangement of lines or combination of colors, or any two-dimensional or three-dimensional outward shape, line, outline, form, texture, or material, without

36 Al respecto puede consultarse lo siguiente: El contrato de acceso es el acuerdo celebrado entre el Estado colombiano, por conducto del Ministerio del Medio Ambiente y Desarrollo Sostenible, y los usuarios de los recursos genéticos mediante el cual se establecen las condiciones de acceso, la utilización o tipo de uso que se hará de los recursos genéticos y los beneficios a distribuir”. Conde, Carlos Augusto. El todo o parte de seres vivos tal como se encuentran en la naturaleza, los procesos biológicos naturales, el material biológico existente en la naturaleza o aquel que pueda ser aislado, inclusive genoma o germoplasma de cualquier ser vivo natural” en *Derecho de Patentes*, Universidad Externado de Colombia, Bogotá, 2016, p. 355.

37 “En un Sistema de protección positiva de los conocimientos tradicionales (sobre todo en un régimen *sui generis*) una de las condiciones indispensables para que un tercero pueda acceder a los conocimientos tradicionales y hacer uso de los mismos, es la relacionada con la distribución justa y equitativa de los beneficios que se deriven de dicho acceso. Esos beneficios son una forma de retribuir y valorar el conocimiento tradicional de las comunidades locales o grupos étnicos”. MONROY, JUAN CARLOS, “Régimen de Protección socio jurídica de los conocimientos tradicionales en Colombia”, *Monografía* n.º 2, Universidad Externado de Colombia, Bogotá, 2006, p. 223.

38 MUÑOZ-ROJAS, TATIANA MARÍA; GIRALDO-BUILES, JIM y LÓPEZ-GÓMEZ, MARÍA DEL SOCORRO, “Mecanismos de protección de los conocimientos tradicionales: el caso de Colombia”, *Revista Derecho del Estado*. 43 (abr. 2019), 235-264.

39 Corte Constitucional. Tutela T-477-12 Sentencia de 25 de junio de 2012. M.P.: Adriana María Guillen Exp. T-3.363.570.

40 BRENDA, SALAS. *La moda y la propiedad intelectual*. Universidad Externado de Colombia, Bogotá, 2019.

the intended use or purpose of the said product being thereby changed, shall be considered an industrial design”.

The protected object is wide. It comprehends two-dimensional and three-dimensional creations, external effects, textures, among others. In sustainability field it can be observed that many of the improvements in the article’s behavior involves the design of zero waste products. For example, aerodynamic cars and planes, or electronic devices created to reduce hardware elements<sup>41</sup>. These are samples of protection under the figure of industrial design.

Nowadays, there is a higher designer’s consciousness over the ecological impact of products and its sustainability. Biophilic design and clothing are clear representations of it. The first one incorporates natural elements in urban or interior design<sup>42</sup>. The second intends to produce dresses, shoes and accessories considering environmental or socio-economic aspects<sup>43</sup>.

The requirement to obtain the protection is novelty. In accordance to article 115 of Industrial property regime 486 of 2000, “an industrial design shall not be considered new if, before filing date or validly claimed priority date, it has been made accessible to the public in any place or at any time, by description, use, or any other means. An industrial design shall not be new by virtue of the mere fact that it embodies secondary differences in relation to earlier creations, or that it refers to a category of products different from that to which the said creations belong”.

Additionally, there is no design protection in aesthetic features that are exclusively dictated by technical considerations. This is due to functionality which protected by the patents system through utility models. Justly, article 116 establishes:

Article 116. The following creations shall not be registrable:

(...)

b) industrial designs the appearance of which was dictated essentially by technical or functional considerations and that fail to incorporate any arbitrary contribution by the designer.

<sup>41</sup> Organización Mundial de la Propiedad Intelectual. World Intellectual Property Day 2020 – Innovation for a Green Future [Recurso Electrónico] Disponible en: [https://www.wipo.int/ip-outreach/en/ipday/2020/green\\_future.html#:~:text=Carving%20a%20pathway%20to%20a,preserve%20the%20environment%20is%20growing](https://www.wipo.int/ip-outreach/en/ipday/2020/green_future.html#:~:text=Carving%20a%20pathway%20to%20a,preserve%20the%20environment%20is%20growing) Consultado el 10 de febrero de 2020.

<sup>42</sup> OVACEN. *El diseño biofilico. El poder de la arquitectura y la naturaleza*. [Recurso Electrónico] Disponible en: <https://ovacen.com/el-diseno-biofilico-el-poder-de-la-arquitectura-y-la-naturaleza/> Consultado el 10 de febrero de 2020.

<sup>43</sup> Twenergy. *Ropa hecha con materiales reciclados, la apuesta de una empresa española*. [Recurso Electrónico] Disponible en: <https://twenergy.com/ecologia-y-reciclaje/reciclaje/ropa-hecha-materiales-reciclados/>; <https://blogthinkbig.com/ropa-plastico> Consultado el 10 de febrero de 2020.

Even though, the norm intends to establish different mechanisms of protection for functional designs, the complexity of identifying when a sustainable design is exclusively dictated by technical or aesthetical considerations must be stressed. Nevertheless, the Andean justice tribunal proposed as a solution of identifying functionality, if the creation was “exclusively” dictated by technical considerations; then the design will be protected by patents, not by industrial designs<sup>44</sup>.

However, data bases of the Superintendencia de Industria y Comercio confirmed that non-sustainable industrial design has been protected yet. In contrast, European Office had granted this type of protection to paper design industry and sustainable packaging<sup>45</sup>.

To sum up, patents and industrial designs constitute useful tools for sustainable design protection. The criteria to access every instrument must be fulfilled. However, as an alternative, sustainable design can be protected by distinctive signs (b).

### *b. Distinctive Signs*

Distinctive signs have for object protecting the relationships between the producer and its clients. In the family of distinctive signs there are brands, commercial names, advertising slogans, emblems, domain names, appellation of origin and indication of origin. In sustainable design there are two relevant types of signs, on the one hand there are trademarks (i), on the other hand there are appellations of origins(ii).

#### *i. Trademarks*

Trademarks can be understood as distinctive signs that identify a product or service from a certain undertaking. Article 134 of industrial property regime establishes that “any sign that is capable of distinguishing goods and services on the market shall constitute a trademark”.

Trademarks can adopt diverse types. They can relate to an expression, an image or to a mix between both. They can constitute a form of a product, its color, its position, its texture, etcetera.

One of the requirements for trademark protection is distinctiveness, therefore, the sign can be inherently distinctive or can acquire distinctiveness through use.

Sustainable design is not indifferent from trademarking, precisely, Colombian enterprises that are promoting sustainability rely on trademarks to identify their products and services. Clear examples of it are enterprises such as Renova Design,

44 SALAS, BRENDA. “La relación de la patente y el diseño”, *Derecho de Patentes*. Universidad Externado de Colombia, Bogotá, 2016.

45 Oficina europea de propiedad intelectual. [Recurso electrónico] Disponible en <https://www.euipo.europa.eu/eSearch/#details/designs/001044721-0001> Consultado el 10 de febrero de 2020. Oficina europea de propiedad intelectual. [Recurso electrónico] Disponible en: <https://www.euipo.europa.eu/eSearch/#details/designs/000855408-0011>. Consultado el 10 de febrero de 2020.

which promotes sustainable bags, suitcases and backpacks design from recyclable material<sup>46</sup>. Ecotelhado distinguished for construction of urban gardens, green rooftops, green walls, permeable pavements and ecological drains<sup>47</sup>.

Another type of signs promoting sustainable design are certification marks and collective trademarks. The first ones are to “be applied to a product or services in which quality or other characteristics have been certified by trademark’s owner”<sup>48</sup>. The second ones allude to trademarks that distinguish the origins or any other characteristics common to goods or services from different businesses that use the sign under owner’s control<sup>49</sup>.

In the field of certification trademarks and sustainable design it can be emphasized that Colombian environmental ministry is the owner of “sello ambiental colombiano” certification trademark. It distinguishes technological, scientific and industrial design services that can reduce adverse environmental impacts<sup>50</sup>. In consequence, this type of trademarks certifies a good environmental or sustainable management proficiency. In regards to collective brands “agroarte seda organica” was protected to identify clothing and shoes<sup>51</sup>.

These examples are punctual cases of legal protection of sustainable design through trademark law. Indigenous communities or brand associations frequent usage of collective trademarks promotes sustainable design production. Collective trademarks like “sombbrero vueltiao” entitled to Zenu de San Andres de Sotavento (indigenous reserves), “mochilas arahuacas” entitled to Aehuaco (indigenous reserves), or Tejeduría Iraca de Usiacuri entitled to Usiacuri’s artisanal association confirm this affirmation.

Nonetheless, sustainable design is not only limited to this type of signs, in effect, it does it to geographical indications as well.

Geographical indications widely protect geographical product origins that can have a direct effect over its particular characteristics, its recognition and acceptancy by the consumers<sup>52</sup>.

Within geographical indications there are appellations of origins and indications of origins. On one side appellations of origin designate the recollection, transformation or fabrication place of a product. On the other side, indications of origins point to a name of a region or the geographical zone in which the product

46 Twenergy. *5 marcas colombianas que ayudan al medio ambiente*. [Recurso Electrónico] Disponible en: <https://twenergy.com/ecologia-y-reciclaje/reciclaje/disenio-sostenible-5-marcas-colombianas-que-ayudan-al-medio-ambiente-1268/> Consultado el 10 de febrero de 2020.

47 Ecotelhado [Recurso Electrónico] Disponible en: <http://ecotelhado.com.co/>. Consultado el 10 de febrero de 2020.

48 Decisión Andina 486 de 2000. Artículo 185.

49 Decisión Andina 486 de 2000. Artículo 180.

50 Superintendencia de Industria y Comercio. Delegatura de Propiedad Industrial. Exp. SD2017/0009774.

51 Superintendencia de Industria y Comercio. Delegatura de Propiedad Industrial. Exp. SD2017/0009125.

52 CASTRO, JUAN DAVID, *La propiedad industrial*, Op. cit., p. 193.

has been gathered, transformed or fabricated<sup>53</sup>. The distinctive note between both types of signs is that appellation of origins shows a quality relationship according to the place in where the product has been produced, meanwhile, indications of origins never do<sup>54</sup>. The relationship between sustainable design and appellation of origins results an interest point of study (ii).

## ii. Appellations of Origin

Its juridical recognition is contemplated in the 12th title of industrial property regime 486 of 2000. Article 201 disposes:

An appellation of origin shall be understood to be a geographical indication consisting of the name of a particular country, region, or locality, or of a name which, without being that of a particular country, region, or locality, refers to a specific geographical area, which name is used to identify a product originating therein, the qualities, reputation, or characteristics of which are exclusively or essentially attributable to the geographical environment in which it is produced, including both natural and human factors.

Appellation of origins corresponds to the geographical zones in where producers dispose of special natural resources or elaboration procedures that have been simplified or perfected through time and which application or use affects special characteristics of the proper produced or elaborated products<sup>55</sup>. Its distinctiveness materializes on the association done by the consumer “between manufacturing place, extraction or product elaboration and its own characteristics”<sup>56</sup>.

Appellation of origins promotes quality production within rural communities, it strengthens value chains and enhances the access to better paid markets<sup>57</sup>, however, the questioning relies on the events in which a sustainable design is linked to an appellation of origin.

To answer, sustainable design will be protected through appellation of origin if the product has a direct cause-effect link with the geographical zone, its natural features or its human factors. Additionally, the product must consider social and economic quality of the employed materials as well as its design and production process.

*Tejeduría Wayuu, Tejeduría Zenú, Sombrero Suaza, Sombreros de Sandoná, Cerámica Artesanal de Ráquira* are appellation of origin cases protected as sustainable designs only if each product is linked to a geographical zone, its human and

53 *Ibidem.* p. 196.

54 *Ibidem.* p. 197.

55 *Ibidem.* p. 201.

56 *Ibidem.* p. 201.

57 Noticias ONU, *Con denominación de origen, el desarrollo sabe mejor.* [Recurso Electrónico] Disponible en: <https://news.un.org/es/story/2018/04/1432242> Consultado el 17 de septiembre de 2020.

natural resources and finally to the quality implicit on the employed materials, its design and its production process. It is important to clarify that the fact of using an endemic raw material or traditional technique does not make a product sustainable. In consequence, It is mandatory that the outcome obeys to environmental, social and economic dynamics in order to create a proper sustainable product<sup>58</sup>.

Once more, it is observed their connection with traditional knowledge and cultural traditional expressions. For this reason, it results necessary to point out that every expression linked to these aspects requires the previous and informed consent from the indigenous community to avoid possible infringement.

Our Constitutional Court specifies that indigenous communities are subject of special protection<sup>59</sup>. In consequence, when these elements are to be inserted into a sustainable design project it is required to obtain previous and informed consent from the community<sup>60</sup>. In some other occasions a previous consultation will be asked for those events in which indigenous communities result affected in a positive or negative manner<sup>61</sup>.

To sum up, sustainable design can be protected through different intellectual property rights within Colombian law. Even though copyright offers some solutions through works of art and works of applied art, some questions remain in regards of their association with traditional cultural expressions or traditional knowledge. In these cases, legislation has determined that folklore works are public domain. Therefore, it results necessary exploring other protection means via industrial prop-

58 CASAS-CARO, LUISA FERNANDA y LOZANO, ALEJANDRO, *Biocommerce and sustainability: an analysis around raw materials in Colombian handicrafts*. [Recurso electrónico] Disponible en: <https://revistas.unimagdalena.edu.co/index.php/intropica/article/view/2628/2229>. Consultado el 17 de septiembre de 2020.

59 Corte Constitucional. Tutela T-963-19 Sentencia de 15 de febrero de 2019. M.P.: Antonio Lizarazo Expediente T-6.529.317.

60 *Ibidem*. “El consentimiento libre, previo e informado hace alusión a que es necesario que la comunidad indígena conozca, de manera libre, previa e informada la medida que puede afectar a la comunidad. De manera que de no obtener dicho consentimiento debe prevalecer la protección de estas colectividades. En ese sentido, ‘(e)l Estado en principio sólo tiene la facultad de implementar la medida si obtiene el consentimiento, previo, libre e informado de la comunidad indígena. La anuencia del pueblo étnico diverso es en principio vinculante, puesto que, sin éste, la implementación de la medida entraña una violación de los derechos de estos colectivos. En casos excepcionales, la medida podrá ser implementada sin el consentimiento de los pueblos, pero el Estado deberá en todo caso garantizar los derechos fundamentales y supervivencia (física-cultural) de las comunidades étnicas diversas y deberá realizar las correspondientes reparaciones a los pueblos por esta determinación’”.

61 *Ibidem*. “La consulta previa se realizará siempre que haya para la comunidad indígena una afectación directa sea positiva o negativa, a fin de establecer si la consulta es obligatoria en un caso concreto, por afectar directamente a las mencionadas comunidades, la jurisprudencia constitucional ha señalado que hay ‘afectación directa cuando la ley altera el status de la persona o comunidad bien sea porque le impone restricciones o gravámenes, o por el contrario le confiere beneficios’. De manera que procede la consulta, cuando la ley contiene disposiciones susceptibles de dar lugar a una afectación directa a los destinatarios, independientemente de que tal afecto sea positivo o negativo, aspecto éste que debe ser, precisamente, objeto de la consulta”.

erty. Patents and industrial designs could be appropriate tools to protect sustainable design, when they bring a technical solution or incorporates a novel appearance.

Distinctive signs contribute through brands and appellation of origin to legally protect these aspects. Questioning arise when intellectual property rights are linked to traditional knowledge or cultural traditional expressions, in this case its usage will require a previous and informed consent from the indigenous community.

### 3. CONCLUSIONS

Design world is currently facing the challenge of fabricating products and services that combine designer's creativity and artfulness aiming to diminish adverse environmental effects. In this context, green technology development associated to sustainability is one of the answers towards sustainable design.

Sustainable design is a doctrinal construction that has not a settled definition into Colombian law. However, it is a cardinal notion that guides new business models. Precisely, Colombia is referring to "green businesses" in which sustainable design is being inserted<sup>62</sup>.

Even though the initiative is positive, this kind of businesses is facing a series of challenges, for example, Colombian consumers lack knowledge about sustainable design exportations and legal protection regime. This last one arises the question ¿How legal Colombian regime is protecting these creations?

Intellectual property is the idoneal answer because it allows the protection of diverse sustainable design manifestations under copyrights and industrial property figures. Precisely, sustainable design nature will allow to identify the most suitable type of right to fulfill designer's needs. It is important mentioning that some criteria will be asked in order to get these types of protection.

Unquestionably, the concession of patents for sustainable design evokes questions about "access". Some scholars consider that recognizing those rights entails obstacles, specifically, in acquisition costs or licensing agreements<sup>63</sup>. Conversely, the WIPO sustains that intellectual property fosters sustainable design innovation and new markets development in local or international scales<sup>64</sup>.

62 Hace alusión a aquellas prácticas comerciales que deben incorporar elementos ambientales, sociales y económicos que fomenten ciclos de vida más largos de los productos. *Dinero. ¿Qué son los negocios verdes y cuantos empleos genera en el país?* [Recurso electrónico] Disponible en: <https://www.portafolio.co/negocios/que-son-los-verdes-y-cuantos-empleos-genera-en-el-pais-535667>. Consultado el 10 de febrero de 2020.

63 KHOR, MARTIN, "Análisis del contexto y de las negociaciones recientes sobre cambio climático, tecnología y derechos de propiedad intelectual", *Informe sobre Políticas Climáticas* n.º 15, Centro del Sur, noviembre de 2014. Citado por FIGUEROA HERNÁNDEZ, ARIADNA y HERNÁNDEZ BENÍTEZ, YENDRY. "Los derechos de propiedad intelectual y el medioambiente: las negociaciones sobre el cambio climático", *Revista La Propiedad Inmaterial* n.º 28, Universidad Externado de Colombia, julio-diciembre 2019, pp. 43-72.

64 Al respecto puede consultarse [https://www.wipo.int/portal/es/news/2020/article\\_0005.html](https://www.wipo.int/portal/es/news/2020/article_0005.html)



Colombian government is still intervening to increase sustainable businesses by including design within a regional plan known as “national plans for green projects”.<sup>65</sup> Up to November 2019, the 10 departments conforming Central region where 34,23% of the total green business existing in Colombia. Those numbers were projected in 484 entrepreneurship businesses related to organic and ecological production of coffee, cacao, panela, fruits, vegetables, honeybees, crafts, and ecotourism. Other regions with an important amount of green businesses were the Caribbean and the Pacific with 341 (24,12%) and 286 (20,23%) green business, respectively; followed by the Amazonia with 227 (16,5%) and the Orinoquía with 76(5,37%) businesses, correspondingly<sup>66</sup>.

These numbers lead to a consideration, Colombia is moving forward in the process of inserting sustainability in design. In regards to intellectual property, the “Superintendencia de Industria y Comercio” has developed some academic events promoting an approach between green technology inventors and industry<sup>67</sup>. At the same time, their tech-newsletters have socialized some solicitudes about patents related to green technologies<sup>68</sup>. Nonetheless, the existence of patent pilot programs and green industrial design is still absent.

In crafts and sustainable design field, the “Superintendencia de Industria y Comercio” and “Artesanías de Colombia” have signed an agreement to support artisans in the matter of industrial property. The agreement established special benefits in the register fees of industrial designs, distinctive signs, collective trademarks, etc<sup>69</sup>.

In this context, the adverse effect of climate change is increasing and Colombia is not indifferent to this phenomenon. Then, in a close future sustainable design framed into intellectual property should become a common factor to promote wealth, jobs and protection for our planet.

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<sup>65</sup> Hace alusión a aquellas prácticas comerciales que deben incorporar elementos ambientales, sociales y económicos que fomenten ciclos de vida más largos de los productos. *Dinero*. Qué son los negocios verdes y cuantos empleos genera en el país? [Recurso electrónico] Disponible en: <https://www.portafolio.co/negocios/que-son-los-verdes-y-cuantos-empleos-genera-en-el-pais-535667>. Consultado el 10 de febrero de 2020.

<sup>66</sup> *Ibidem*.

<sup>67</sup> Superintendencia de Industria y Comercio. Cuarta Versión de la Rueda de Patentes. [Recurso electrónico] Disponible en: <https://www.sic.gov.co/content/cuarta-versi%C3%B3n-de-la-rueda-de-patentes>. Consultado el 10 de febrero de 2020.

<sup>68</sup> Superintendencia de Industria y Comercio. “Bicombustibles avanzados de hidrotreatamiento”, *Alerta Tecnológica*, SIC, Bogotá, junio de 2013; Ver también <https://www.sic.gov.co/boletines-tecnologicos>

<sup>69</sup> Document available at: <https://www.sic.gov.co/superindustria-y-artesantias-de-colombia-firman-convenio-para-apoyar-a-los-artesanos-en-materia-de-propiedad-industrial>

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