Nanotechnology and human health: regulation for the implementation of sustainable development

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Abstract

❖ This article aims to correlate nanoelement technologies and legal regulation in the use and disposal of such materials.

❖ With the purpose of supporting a critical reflection on the economic development model, added by arguments derived from the area of Research, Development and Innovation (PD&I), the precautionary principle is beacon of corporate management and sustainable instruments for the protection of the environment and human health.

Methodology

➢ Through the qualitative approach, bibliographic procedures were adopted, with a survey of theoretical references published by electronic and documentary forms.

Theoretical Orientation

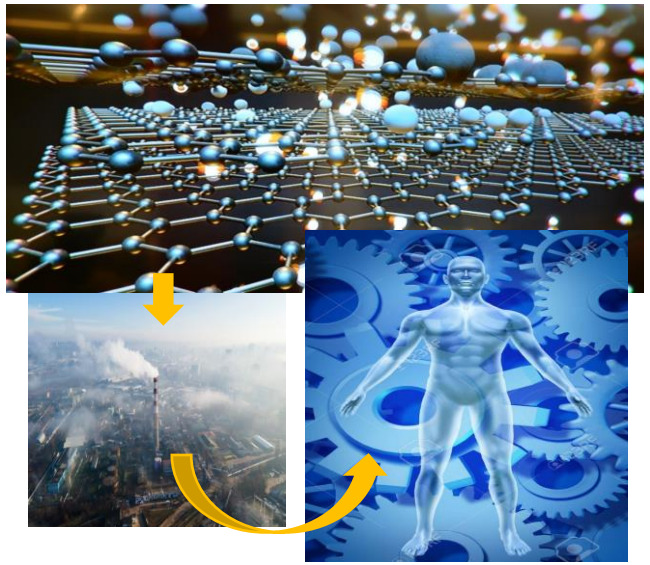
➢ Theoretical orientation [...] to meet the interdependent needs of living beings, while increasing the capacity of future generations of all species to satisfy their own needs [...], and the title 'multispecies sustainability' (RUPPRECHT *et al*, 2020, p. 3).

Results

➢ Its diffusion among sectors, in the production and commercialization of agricultural, human and industrial remediation, is a worldwide concern due to human and environmental exposure to such materials.

➢ Because precisely of its greatest characteristic, it also reveals to be the greatest concern, which is the size of the particles, since they are elements outside of any human perception, and they can be inhaled, ingested, or even absorbed by the skin, which can trigger a series of diseases or effects still unknown to health. (POPE *et al*, 2008).

GRAPHENE



Conclusions

➢ The constitutional link between the development and safety of any activity that produces environmental and/or human impact, such as nanotechnology, is situated in the principle of human dignity, inclusions in art. 1 and 170 of CF/88.

➢ It should be noted that the economic order is based on sustainable and socially responsible economic policies. Since 2010, the International Labour Organization (ILO) has been issuing warning reports that indicate the risks arising from the work environment due to the production processes of new technologies.



References

BRASIL. Federal Constitution of 1988. Available at: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Access in: 05/05/2021.

DE NIGRI, Fernanda. **Policies to support technological innovation in Brazil: recent advances, limitations and proposals for actions**. TURCHI, Lenita M, MORAIS, José M. (Orgs.) E-Book. São Paulo/SP: IPEA-Applied Research Institute, 2017.

SCHLYTER, C. Draft Report on regulatory aspects of nanomaterials. **Committee on the Environment, Public Health and Food Safety.** European Parliament. Available at :https://www.europarl.europa.eu/meetdocs/2004_2009/documents/pr/763/763225/763225en.pdf. Access in 30/04/2021.

RUPPRECHT Christoph C. C., *et al*. Multispecies sustainability. **Global Sustainability Journal**. London: Cambridge University Press. 2020. doi:101017/sus.2020.28 Available in: https://www.ecycle.com.br/3093-sustentabilidade.html. Access in: 05/05/2021.

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