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Science for society: participatory research and social appropriation of knowledge

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The articulation between science and society through scientific knowledge as a tool for transformation and improvement of the quality of life of human communities is one of the main engines of scientific, technological, and social development (Wittmayer and Schöpke, 2014). In such a way, the science-society interface is usually an aspect of vital interest when considering the scientific investigation's purpose, method, and scope of a research or intervention in a real-life context. In this sense, diverse types of approaches connect science and technology actors with members of society, which can be classified, in a general way and under an elementary vision, into two primarily approaches:

i) Social appropriation of knowledge: in this approach, scientific and technological knowledge is available to social actors in an accessible environment and understandable lexicon, which allows its use and/or adaptation to address specific problems oriented to the societal and economic development of a population to improve their life quality (Agudelo, et al., 2022; Lozano and Gaona-Ramirez, 2018; Romero-Rodríguez, et al; 2020).

ii) Participatory research: this research is based on the dialogue, association, and joint work of the actors of the scientific and community field oriented towards the generation of qualitative and/or quantitative knowledge of academic, technological, and social relevance that allows the transformation or solution of population requirements and necessities (Thiollent, 2011; Vaughn, and Jacquez, 2020; Wittmayer and Schöpke, 2014).

Despite this division, *Participatory research* and the *Social appropriation of knowledge* tend to present a diffuse division and can even be analyzed as complementary approaches because, in various contexts, participatory research requires a social

appropriation of knowledge (and vice versa) to analyze alternatives for intervention, transformation, and the construction of relevant knowledge for the territory dwellers. In this way, it is understandable that scientific research carried out in the context or objective of social transformation requires identifying the socioeconomic and cultural environment of the community of interest, which makes it possible to identify the problems in which knowledge can be applied or orientation in its construction.

Having established the role of science in society and how the *Social appropriation of knowledge* and *Participatory research* allows an improvement in the quality of life of human populations, **it is elated that the articles that constitute Vol. 13 of Nov 2022 of JSTA address the science-society connection from different perspectives and stages.** In such a way that, in the **review and knowledge stage of the general context**, the article by S. D. Chate Galvis and Y. Mosquera Nieva presents the analysis of the socioeconomic and cultural representations of the Afro-Colombian community in the literature of Mary Gueso Romero and its impact in the social imaginary. In the **diagnostic stage of the requirements**, the articles by R. Bolaño et al. and by R. S. Valencia et al. report the results of the rural diagnosis of the technical capacities and characteristics of associations and communities in fish farming and agricultural production activities. In the **evaluation stage of alternatives**, J. M. Arce et al. research presents the use of scientific knowledge in valorizing the residual biomass of an association that practices pisciculture in limited resources aquaculture (LRA), and its potential use in environmental remediation systems. Finally, in the **intervention/action stage**, the article by L. Anaya-Tatis et al. reports the results of microbiological control strategies in a fish farm of an LRA-type producer association.

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Editorial



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