

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE
Faculty of Tropical AgriSciences
Department of Sustainable Technologies



**ESSAY ON THE ROLE OF A SCIENTIST IN SOCIETY & THE
RESPONSIBILITY OF SCIENTISTS TO SOCIETY**

For the course:
Research Ethics and Academic Integrity

By:
TEWODROS TAREKEGN LAPISO

Submitted to:
Associate Professor Ing. Hynek Roubík, Ph.D.

In every human society, for all walks of life, whether as an individual or as a group, it is common to have different roles for the continuation, functioning, and existence of that society. Roles by their nature will be followed by different responsibilities.

Scientists as an essential part of society play certain roles and there will always be responsibilities tagged with their roles. The role and responsibilities may be a result of efforts, contributions, or achievements of scientists by themselves (earned roles); and, in other cases, a result of society's tradition, culture, advancement in education, or/and educational coverage (assigned/given roles). In most cases, it is difficult to differentiate or draw a line between the assigned and earned roles and responsibilities due to their interlinked nature. However, there is a point where they become easy to notice independently. By respecting these facts, both roles and responsibilities of scientists in society and to society are examined in detail from a global point of view, which is common for most cultural settings.

ROLES OF SCIENTISTS IN SOCIETY

The roles of scientists in society began by being human, and it is not different from any individual who has a common role in society in this regard. Scientists beyond having these roles and being bound by them; have an additional role in resolving the ongoing debate/dispute by shading light and supplying factual evidence through their scientific works to society's paradigm of thinking.

Once performing the given roles, particularly those that are directly related to natural identities, such as being male or female, father or mother; scientists use them further to acquire newly earned roles. These roles are not always the same for all scientists. They are based on their interest, effort, and execution. As a result, they will differ for each scientist. Teaching, mentoring/coaching, leadership, and consulting are good examples of these categories. Most often, these roles are performed in the academic sphere, but not limited to it. In some cases, they played these roles beyond this boundary to reach and impact a wide range of society's way of life.

The role of scientists in the academic field is very important and significant. Beyond their engagement in the search for new knowledge and scientific activities mostly, they participate in the teaching and learning process of universities and higher educational institutes. These roles are not restricted to sharing their knowledge and scientific findings; they are directly involved in creating a conducive environment for creativity, innovation, and scientific thinking for their students and the overall university community by keeping the universality of higher education. Scientists' effort in accomplishing this role makes them crucial in achieving current educational and developmental needs and aspirations without compromising or posing threat to future generations.

It is also possible to discuss the role of scientists in the context of social, economic, political, and environmental components. Here again, all four components are intertwined with each other and difficult to compartmentalise as an independent entity. Even mentioning some of them under their categories is done as follows by recognising that the differentiating line is theoretical. In the social aspect, we can take the above-mentioned scientists' roles in the academic sphere as they are. In addition, their roles in socialising within their group and their contribution to strengthening social bonds within the society can be added. In the economic sector, scientists' roles are very important, based on their field, from being a catalyst for economic awakening through their findings to being active players in generating, producing, and transacting economic resources. Especially at this time, when all economic activities are

performed through the use of advanced technological instruments and platforms, the role of scientists is a backbone for the smooth and continuous functionality, growth, and sustainable development of any economy. While in the political arena, scientists throughout the ages played a significant role. It starts by constructing and developing different political philosophies and then galvanising them by creating a code of conduct for fairness in their application. Although the roles of scientists are not limited by this, they also directly participate as a politician in practical terms.

The concept of environment is wide and intricate, being a critical measurement of any society's sustainable living and existence. Currently, it does not have a field specification to deal with it. Bearing this in mind, the roles of scientists in dealing with the environment are expected to be high, and it is in reality as well. Therefore, they play their role in all disciplines by conducting scientific research to come up with solutions to existing environmental problems. Similarly, here also participated in environmental conservation activities for different elements of the environment to apply scientific findings by being an ardent actor.

RESPONSIBILITIES OF SCIENTISTS TO SOCIETY

As stated above, the responsibilities of scientists to society are a direct result of their roles in society. Their responsibilities are the governing frameworks of their conduct while performing their roles. As general responsibilities, they have the power to guide behaviour/personality, communication, and level of engagement. Beyond this, responsibilities themselves also indicate once accountability to society. When a shortfall occurs to fulfil an identified responsibility, responsibility follows. Consequently, in this sense, the whole concept of research ethics and academic integrity is brought alive. It is not the only notion that describes the responsibilities of scientists. The scientists' roles in society did not limit themselves to research activities and the academic circle.

Specifically, in the research and academic area, scientists have the responsibility of adhering to all ethical standards according to their field of study and the types of work they are engaged in. At the same time, they are also expected to maintain the principle of academic integrity, which stresses the genuinity and flawlessness of their work in all the processing steps. Furthermore, scientists have many other responsibilities to their society, which are multifaceted and grounded in their research and academic activities.

In all scientists' roles either socially or economically or politically or environmentally, there is an attached responsibility to perform in the right way for the benefit of society.

To conclude, it is wise to mention that it is not always easy to separate scientists' roles and responsibilities basically in practical terms. At the juncture between scientists' roles and responsibilities, some lists fall in the middle as a boundary. In this category, the search for new knowledge and expanding the existing one is prominent. While scientists play all kinds of role in society and carry out responsibilities to society all the stakeholders in the process and observers from outside demand and request a new and better solution for the ongoing societal affairs. This requires scientists to be always on the quest of answering this question to reduce the burden on themselves and satisfy the demands. In doing so, the search for new knowledge and the expansion of existing knowledge will bring about new theories and applied methods. On the other hand, these new theories and practical solutions are going to improve the performance of scientists' roles to effectively fulfil their responsibilities. Additionally, their participation in the pursuit of new knowledge will bolden their earned role which helps them acquire a desired place within society.