

Scientific Research is a Token of Humankind Survival

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This essay "Scientific Research is a Token of Humankind Survival" has been written by Russian mathematical geophysicist and seismologist Vladimir Keilis-Borok. This essay has presented the facts related to science and its outstanding contribution to the lives of the people of the world. This essay has shown how scientists across the globe, rise above their national identities, to find solutions for common problems of nations. The speaker of this essay is the writer himself. Here, we find him advocating science saying that science is the indispensable guardian and caretaker of humankind.

The writer starts with the profession of a scientist saying that scientists get low earnings than businessmen, lawyers and doctors. Despite this fact, some people still decide to be scientists because they cannot live without science. According to the writer, science is an exciting adventure where the major reward comes from the discovery itself. Instead of big money, the scientist gets honours and promotions through his/her discoveries. A scientist gets lesser money than lawyers, doctors and businessmen but enjoys freedom, camaraderie and independence.

Next, the writer talks about his experience during the cold war with his readers. The writer says that during 1960, while he was doing his research of seismic waves (Earth tremors) in the capital city Moscow, he was summoned by the President of the Russian Academy of Sciences. The President showed him a letter from Geneva related to a meeting of Geneva about nuclear weapons. An American scientist, Fran Press called him to Geneva to attend the discussion. As a result, the writer found himself in Geneva.

During that time, the fear of annihilation by nuclear weapons was so high. People were living in threat. The cold war was at its height during 1960. The superpower nations as Russia (Soviet), America and England had lots of nuclear weapons. They could easily destroy other nations in their first strike using nuclear weapons. Before Geneva Summit, for the sake of the survival of humanity, an important decision was taken by the politicians of three powerful nations. The three nuclear powers were willing to come to an agreement banning the new nuclear weapons test. That episode was the atmosphere of the cold war in which scientists from opposite sides had to come to an understanding to promote world peace and prevent the use of nuclear weapons. That episode taught the writer that science is the hope of survival and well-being of all.

The nuclear powers signed the agreement to stop the test of new nuclear weapons. But, they faced the problem that if anyone violated the agreement by

secret underground testing of nuclear weapons, how could they (other powers) detect that test. For that, the technical experts (scientists) were summoned to solve the problem that arose.

As a seismologist, the writer had theoretical knowledge of seismic waves. His theoretical knowledge had a direct application in the area of survival of humankind. He had very good knowledge about tremors of underground nuclear explosions as well as tremors produced by earthquakes. With his knowledge, the writer would easily know the difference between the two different tremors.

According to the writer, scientists are the most practical people in the world. This could be seen in new technologies, new brands of the industry from defence to entertainment. The scientists invent antibiotics, electronics, biotechnology, synthetic fibres, the green revolution, and genetic forensic diagnosis etc. The basic knowledge of science always supports people in their lives.

According to the writer, the survival of our civilization is threatened by natural and man- made disasters. Among them, the natural disasters are earthquakes, self-inflicted destruction of megacities, environmental catastrophes, economic and social crises. A massive release of radioactivity from nuclear waste disposal and an outburst of mass violence are cited by the writer as man-made disasters.

Science is our indispensable guardian and caretaker because it is the only science that can ensure that we move with time safely.

For the survival of humankind, countries had signed a treaty of not testing nuclear weapons secretly. But, science and its scientists ensured humankind's survival. It is the only science that can differentiate between the tremors caused by nuclear explosions and natural earthquakes. It is the science that can give us new sources of energy, new mineral deposits, and efficient defence from terrorism.

The hope of science for the survival of mankind has larger significance also. In the present scenario the safety of mankind is threatened by both natural and man-made disasters. Be it a tsunami, be it terrorism, money alone cannot tackle the problem. Scientific solutions are the only hope. Thus, the writer has umpteen reasons to conclude that science is the hope of survival.