

Crisis threatens science progress

Years of sociopolitical unrest in Nicaragua and Venezuela have given rise to a human rights and humanitarian crisis in Latin America. Last week, the situation in both countries took a serious turn. In Nicaragua, the government began negotiations with the opposition to end the political crisis, while continuing to repress and harass university students and independent media. In Venezuela, the escalating crisis resulted in the blocking and burning of humanitarian aid at the border—a development that was widely condemned by the rest of the world. Political instability and insecurity in both countries have had a disastrous economic impact on many sectors. The human resource base critical for meeting urgent and long-term needs in these societies is being devastated. As scientists who are members of academies that belong to the InterAmerican Network of Academies of Sciences, we are deeply troubled by these situations and call on the global scientific community to show solidarity with the academic communities in Nicaragua and Venezuela.

According to the Office of the United Nations High Commissioner for Human Rights, repression and violence in Nicaragua “are products of the systematic erosion of human rights over the years” and of the “overall fragility of institutions and the rule of law.” The InterAmerican Commission on Human Rights reported that during a 3-month period of protests, 322 people were killed by government forces or paid paramilitaries in Nicaragua. In Venezuela, decades of poor governance have resulted in economic ruin, with 90% of Venezuelans living in poverty and 10% of the population having emigrated. Approximately 33% of medical doctors have left, and availability of medicines has decreased. The health care system has been devastated, with increasing child mortality and the reappearance of diseases once thought eradicated decades ago.

It is also important to point out the grave, long-term impact that these crises have on science and education

in these countries. In Nicaragua, firings and arrests of academics and students have brought higher education and research to a standstill. Faced with illegal arrest, imprisonment, torture, and death, thousands of students have fled the country, and most universities closed throughout 2018. Threatened by paramilitary forces, the president of the Academy of Sciences of Nicaragua went into exile.

The state control over academic freedom and autonomy in Nicaragua is ruinous for research and higher education. At least 300 medical doctors were fired from public health centers and universities. As Nicaragua’s gross domestic product fell, funding for the National Council of Universities declined 7%. The budget of the University of Central America (UCA) was cut by 30%. Parallels in Venezuela include food scarcity and a roughly 40% drop in student attendance. As well, 40 to 50% of university faculty members have emigrated or abandoned their posts, and graduate courses have been dropped because of low student enrollment.

The brutal repression against university students and professors is appalling, and the violence and insecurity are reducing international cooperation in Nicaragua and Venezuela. This decline will have long-lasting negative effects at all levels of education, on the training of young scientists, and on research and development covering subjects of regional and global importance.

The tragedies unfolding in these countries point to the importance of academic freedom in fostering critical thinking and expose the devastating consequences of government-led systematic undermining of civil liberties. The world scientific community must join forces with global institutions to pressure both governments to end the violence and human rights abuses, and to urge them to reconsider that their economic and social recovery and political stability can be paved in part by bolstering education and science.

—**Jorge A. Huete-Pérez, Gioconda Cunto de San Blas, Jeremy N. McNeil**



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