

Letter of Support for Dr. Ricardo Villalba in his capacity as former Director of the Argentine Institute of Snow and Glaciers (IANIGLA) and of the National Glacier Inventory of Argentina.

On November 27, 2017, the Argentine federal judge Sebastián Casanello indicted Dr. Ricardo Villalba¹, Senior Research Scientist of CONICET (National Research Council of Argentina), former Director of IANIGLA and the National Inventory of Glaciers, for the crime of “abuse of authority”. This is a legal action initiated by the legal representatives of the Asamblea “Jáchal no se toca” of the city of Jáchal in the province of San Juan who alleged that the methodology implemented in the National Inventory of Glaciers was intended to favor the interests of the Barrick Gold Corporation, the largest gold mining company in the world.

The purpose of this letter is to affirm that the international scientific community expert in the many scientific disciplines in which Dr. Villalba has conducted research (including glaciology) have the utmost respect for his professional conduct, scientific integrity and scientific accomplishments. In the international scientific community, Dr. Villalba is renowned and respected for the scientific excellence of his work, his unblemished professional record, and his exceptional achievements as a mentor of early career scientists.

The Judge’s indictment of Dr. Villalba asserts that cyanide spills, which resulted from the actions of the Barrick Gold Corporation that contaminated the Río Jáchal, would have been avoided if the government authority (IANIGLA) charged with the mapping and inventory of the state of glaciers and periglacial environments had completed its obligations. This assertion of responsibility and causality for the cyanide spill is not only fallacious reasoning but also is a scientifically false characterization of the quality of the mapping performed under the National Glacier Inventory. The methodology of mapping glaciers implemented in the National Glacier Inventory unquestionably met the international norms and standards for glacier mapping. The methodology applied in the National Glacier Inventory was approved by: 1) the Presidency of CONICET, 2) the Ministry of Science, Technology, and Productive Innovation, 3) the Secretariat of the Environment and Sustainable Environment, and 4) the Cabinet Chief of Ministers of the Nation of Argentina. The National Glacier Inventory and the methodologies used to derive it follow the best practices and the recommendations from the international glaciological community. These methodologies are in line with the recommendations made by Global Land Ice Measurement from Space (GLIMS), an international collaborative project that includes more than sixty institutions world-wide with the goal of creating a globally comprehensive inventory of land ice. Specifically, the application of a minimum area threshold for inclusion of glaciers is a mandatory scientific practice. The 0.01 km² (1 hectare) minimum value used in the National Glacier Inventory is smaller (i.e. a higher standard) than the one used in many others scientific studies of glaciers.

This unjust accusation against Dr. Villalba as the former Director of IANIGLA and of the National Glacier Inventory has had the effect of discrediting IANIGLA, which for forty years has been the leading national institution in the study of the environment and natural resources of the Argentine Andes. Dr. Villalba played the key role in promoting the “Law of the Glaciers” promulgated by the National Congress of Argentina in 2010 (National Law No. 26.639). During his prolific career², Dr. Villalba has demonstrated a strong commitment to public engagement and outreach on the topic of water resources for which the Law of the Glaciers is an extraordinary milestone. Among Dr. Villalba’s many other achievements and recognitions³, he is a co-recipient of the Nobel Peace Prize in 2007, which recognizes both his scientific accomplishments and sustained engagement with decision makers through his collaborative work on the Intergovernmental Panel on Climate Change (IPCC).

One of the unfortunate inevitable consequences of this unjustified accusation against Dr. Villalba is the chilling effect it will have on future engagement of Argentine scientists with policy makers. Scientists supported by CONICET are expected to share their scientific expertise with the Argentine public in general and specifically with decision makers in the realm of natural resource protection. The National Glacier Inventory is an iconic example of a potentially highly beneficial and effective interaction between CONICET scientists and policy makers because it addresses the societally critically important issue of hydrologic resources in the context of climate change. This scientific and policy achievement is without precedent in Latin America. The National Glacier Inventory for the first time allows resource managers and planners to know the actual extent of glaciers in Argentina and how that extent is fluctuating with climate change. The false accusation against Dr. Villalba not only endangers the continuation of that long-term painstaking scientific program but it also defames the competency, honesty, and integrity of the collaborative team of researchers who implement the National Glacier Inventory as well as its sponsoring institution—CONICET.

The following footnotes address Dr. Villalba's stature in the international scientific community:

¹ Dr. Villalba is among the top climate scientists in Argentina. He is a Senior Research Scientist of CONICET (National Research Council of Argentina) at the Argentine Institute of Snow and Glaciers (IANIGLA) in Mendoza. He holds the following academic degrees: BS in Forest Engineering (Universidad Nacional de La Plata, Argentina); MS in Photo Interpretation in Forestry (CIAF, Colombia); and PhD in Geography (University of Colorado, USA). Dr. Villalba was also a Postdoctoral Research Fellow at Lamont-Doherty Earth Observatory (Columbia University, USA). This breadth of academic training is impressive by any standard.

² Dr. Villalba is an exemplary model of an interdisciplinary, international, collaborative scientist. His distinguished research career includes publication of over 200 scientific papers in referred journals and books covering a wide range of topics across glaciology, climatology, dendrochronology, geomorphology, hydrology, ecology and water resource management. He has led numerous co-authored publications in leading international journals in glaciology, ecology, biogeography, climatology, hydrology, and the social sciences. Dr. Villalba has made over 200 scientific presentations in Argentina, USA, Canada, Brazil, Italia, Switzerland, Chile, China, Ecuador, Venezuela, Perú, Bolivia, Uruguay, Australia and New Zealand. He has directed 15 doctoral students and 37 scientific fellowship holders at IANIGLA, several of whom now work as internationally respected independent scientists at IANIGLA or at other research institutions in Argentina. Although most of these early-career researchers have been Argentinean, Dr. Villalba has also had profound influences on visiting young scientists from Chile, Bolivia, USA, Germany, France, Switzerland, Canada and other countries who have worked with him at IANIGLA. Over the last 20 years, Dr. Villalba has formed an exceptional research team of young and early-career scientists at IANIGLA who have been motivated by and benefited from the exceptional enthusiasm and high standards characteristic of Dr. Villalba's collaborative work.

³ Dr. Villalba's research and scientific contributions have earned him extraordinary international and national recognition. Because of his profound contributions in climate science, Dr. Villalba was elected to be a member of the Steering Committee of the leading international paleoclimate research program, PAGES (Past Global Changes) of the International Geosphere and Biosphere Program (IGBP of UNESCO). In addition to his recognition as a co-recipient of the Nobel Peace Prize in 2007, Dr. Villalba's meritorious awards and honors include: Mention of Honor of Scientific Merit, granted by the Honorable Deliberating Council of San Rafael, Argentina (December 2007); the Legislative Distinction of the Honorable Senate of the Province of Mendoza (October 2007); Recognition for Scientific Achievement awarded by the Honorable Chamber of Deputies of the Province of Mendoza (April 2008); appointment as Outstanding Personality of the Province of Mendoza in April 2008; and the Tree-Ring Society "Harold C. Fritts Award" for Lifetime Achievement in Dendrochronology (April 2016).

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