The Science Culture Construction

brought the World Green Science Day in 2022

By Marco A. Cabero Z.

Abstract: Every year, World Green Science Day is celebrated on December 9th to raise awareness of the role that science plays in sustainable societies. With World Green Science Day 2023 approaching, this article sorts out the World Green Science Day events in 2022, and provides outlook for the celebration of the WGSD in 2023.

Key words: World Green Science Day, science, sustainable development

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The climate crisis and environmental degradation are two of the most significant challenges facing humanity as a whole. These challenges will last for decades, but immediate action is needed to address them. Not only is it urgent to preserve ecosystems and the abundant Earth we know it to be, but for the sake of the human species' survival. In that sense, the **Science Culture Construction (SCC)** initiated by the Andean Road Countries for Science and Technology (ARCST) and supported China Biodiversity Conservation and Green Development Foundation (CBCGDF) together with several collaborators organized and launched the **World Green Science Day (WGSD)** celebration on December 9th, 2022, to raise awareness of the role that science plays in societies that are peaceful and sustainable. **"Green Science for and with Society"** was 2022's theme for the **World Green Science Day (WGSD)**.¹ It emphasized how the sciences are inclusive and equal and how they help important environmental goals. As we celebrated **WGSD**, we wanted to get the public involved

in open sciences discussions about current science-related issues. The **WGSD** focused on important adaptations to mitigate the adverse effects of biodiversity loss, climate change, pollution, and water calamities. The organizers made an effort to support crucial international scientific collaborations and bring science closer to society. The event discussed contemporary issues that are crucial to the ongoing exchange of information related human health, economy, food security, climate, biodiversity conservation, green development and people's well-being.



Figure 1. Official Logo of the First Celebration of the World Green Science Day in 2022. Source: Andean Road Countries for Science and Technology (ARCST)

This celebration was one of a series that reached out to schools, universities, the general public, the private sector, and other groups to mobilize open sciences. The goal was to improve our overall knowledge, skills, and resilience related to the engagement of people in climate change action, biodiversity conservation and green development. During the celebration of the WGSD the tool called "Quantum leap to green actions (QLGA)" was launched.² QLGA was proposed by our international multidisciplinary team to engage the public in a broader sustainability mission. It offers an opportunity to impact society in general and promote commitment to action against climate change, fostering biodiversity conservation and green development. Lastly, during the WGSD celebration the International Green Science Academy Network (IGSAN) was launched as well.³ IGSAN is a platform that seeks to empower individuals, especially the youth, to lead in the response to biodiversity protection, green development, and environmental challenges facing the globe. By establishing partnerships, we develop, implement and oversee educational programs and

workshops that promote environmentally sustainable behaviors among all age groups. IGSAN is the result of the collaboration between different academic institutions across the globe. IGSAN is an initiative of the South-South Biodiversity Science Project (SSBSP)⁴ and the Green Science Project (GSP)⁵ to promote biodiversity conservation and green development across the globe. Around two thousand people followed the event online in China through the live broadcast in Baidu.

The **WGSD** gathered experts from different countries, including Pakistan, China, Colombia, Mexico, Bolivia, Benin, France, Brazil, etc.

WGSD 2022 was focused on:

- The scientific community, including universities and, in particular, departments involved in environmental sciences, biology, ecology, physical geography, botany, zoology, climatology, meteorology, and the management of natural resources.
- The educational community, particularly universities and schools, who are interested in converting their own buildings into places that are friendly to the environment.
- The general public, including young people who are concerned about resilience to climate change, biodiversity, and water management.
- Government ministries and agencies with a mandate and an interest in biodiversity, climate, the environment, pollution, and water.

The objectives of WGSD were:

- Implement the thoughts on ecological civilization into science popularization.
- Focus on scientific communication of biodiversity conservation and green development, and further strengthen the connection between scientific research projects and science popularization.

- Integrate different countries into actions related to the fulfillment of the Sustainable Development Goals (SDGs 3, 6, 11, 12, 13, 14, 15).
- Promote scientific literacy, climate literacy, wetland protection, biodiversity protection, and green development,
- Boost public understanding of green science development.
- Grow the academic network of experts interested in Biodiversity Conservation and Green Development.
- Raise interest in Green actions to promote the restoration of wetlands, oceans, watermarks, etc.
- Create and launch the first Green Science Library.
- Strengthen the quantity and quality construction of science popularization bases and expand their functions.
- Popularize practices around major issues such as ecological civilization, climate change, sustainable development and **human health**.

WGSD was an excellent and exceptional opportunity to join representatives of different countries, among which borders and distances no longer exist. Offering delegates the chance to discuss their experience in promoting actions that favor green development and biodiversity conservation. We challenged the academic community to take on new perspectives, and build strong new friendships that span across the globe. The event was inspirational through our guest speaker sessions and scintillating topics. We hope that WGSD will help our future leaders to develop the **International Green Science Academy Network (IGSAN)** and transform their ideas into actions.

How are SCC and the WGSD related?

The "South-South Biodiversity Science Project (SSBSP)" initiated by the China Biodiversity Conservation and Green Development Foundation (CBCGDF) and the Green Science Project (GSP) initiated by the Andean Road Countries for Science and Technology (ARCST) joined efforts to start the first of the four phases of the SCC through Science Popularization to raise awareness of climate change in Latin America and the Caribbean. The project of SCC in Latin America and the Caribbean aims to develop a foundation for the scientific cause and build a community with a shared future for mankind.⁶ The first **WGSD** was an excellent opportunity for scholars, academician, researchers, professors, students, and the society to exchange knowledge about contemporary issues related to biodiversity conservation and green development, promote scientific literacy for the general public, foster the ideas of the young generations, and inspire and engage the community into climate change action.

How did the SCC start?

During the "1st Annual Meeting on Science Literacy 2021: A prerequisite for stimulating climate change engagement" organized in November 2021,⁷ several institutions and organizations from different fields around the world that included research, academia, education, innovation, and technology, agreed on the first Declaration on Science and Climate Literacy in the Latin American and Caribbean region. In 2022, we prepared a second version of the declaration, and in 2023, we launched a third version of the declaration inviting the community of researchers, practitioners, scientists, activists, and the general public to work together to promote the harmonious development of science and technology, to contribute to the improvement of public science literacy, climate literacy, biodiversity conservation, green science, and green development to create a better future for the whole of human society.

Outlook for the celebration of the WGSD in 2023

The popularization of science ought to touch on issues such as the Sustainable Development Goals (SDGs), biodiversity conservation and green development. These are areas that need immediate attention to realize the 2030 Agenda for Sustainable Development. It is feasible to design programs that can be sustainable over time and even included in university curriculums to engage youngsters to popularize science and scientific education. Efforts to improve the popularization of science can be directed in at least three directions: the general public, children and young adults, politicians and entrepreneurs. Also, initiatives to make scientific and technological knowledge accessible and familiar to the general public should be complemented by educational reforms that support the role of science teaching in primary and secondary schools as well as a significant expansion of hands-on experimental activities. After all, science is an experimental endeavor. We have entered a period of technological prosperity. The advancement of science has never been so rapid, the scope of science has never been so broad, and the responsibility of fostering and promoting scientific culture has never been so vital and weighty as it is today. In our quest to popularize science, we must promote scientific culture as a way of life, viewing it as the most important component of advanced culture and the cornerstone of science and technology power. This is the only way to advance our scientific cause, and it is also our historical responsibility.⁸

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