GLOBE Program Dominican Republic ANNUAL REPORT

Prepared by: Dr. Maria Lorraine de Ruiz-Alma Country Coordinator



INDEX

INTRODUCTION P.3
EDUCATION P.8
SCIENCE P.8
COMMUNITY P.9
APENDIX P.10



INTRODUCTION

During 2020-2021 our country was in a COVID-19 lockdown that ended e few months ago, with a long list of restrictions. The GLOBE Program was kept active trough national and international webinars, virtual conferences, virtual visits to schools, live virtual interviews, social media and two weeks ago our first Hydrology protocols made during the Coastal Clean Up organized by Ocean Conservancy and famous bloggers.

We did not stop science during COVID era, the measurements were reported by our Davis Weather Station, GLOBE Teachers and citizen scientists' contributions. Our Science Fair was virtual again, and we sent some projects to the International GLOBE Virtual Science Symposium 2020 and 2021.

An important agreement is on with the Ministry of Environment, were we compromised, since November 2020, to participate in national campaigns to educate and train teachers, students and citizens in environmental topics using the GLOBE Program Protocols and Projects, to promote private collaborations to reach the "Sustainable **Development Goals"** that are the blueprint to achieve a better and more sustainable future for all.

We continue working with our popular GLOBE DR project-> "Bee Alive" that promotes phenological gardens with pollinators favorite flowers, water and shelter to study and protect bees, hummingbirds and butterflies. "Bee Alive" was highlighted and presented at the Town Hall of the National District meeting with all the Neighborhood Associations of Santo Domingo Central Polygon on October 11th, 2021.

This year International Coastal Clean Up was sponsored by Ocean Conservancy and the famous bloggers Jimmy Donaldson "Mr. Beast" and Mark Rober. GLOBE students and teachers from: Cathedral (28), Notre Dame School (81), Saint George School (25), New Horizons (20) and Lux Mundi (8) participated. GLOBE Hydrology protocols were presented.

We are also proud of our Alumni for their achievements in science and environmental projects. A list is presented after the 2020-2021 events.

Here are our activities of the year 2020-2021:

2020 May 9, The GLOBE University, Pontificia Universidad Católica Madre y Maestra (PUCMM University) recognized four GLOBE students projects from four GLOBE schools, highlighting their scientific achievements and contributions as winners of the GLOBE DR Science Fair 2020. They also awarded scholarships on their new environmental careers to the GLOBE Schools Alumni from: Lux Mundi, Notre Dame School, New Horizons and Saint Joseph.

2020 GLOBE Community Cloud Challenge: "Science is Better Together". Attracted many citizen scientists, students, amateur and professional photographers that are now more aware of the climate impact on our lives and our carbon print. All the participants received with enthusiasm their GLOBE certificate.

2020 July 13-16 Participant at GLOBE Annual Virtual Meeting and Country Coordinators Meeting.

2020 April 22 Organizing GLOBE DR Virtual Science Fair to celebrate Earth and GLOBE birthday. With Judges from 8 countries that participated virtually, featuring: Ms. Dorian Janney, NASA; Ian Mackenzie, GLOBE, Bahamas and Sonia Haley, GLOBE Bermuda. This was the first Virtual Science Fair celebrated using TEAMS Virtual Platform. Microsoft presented this achievement in their GLOBAL LEARNING WEEK.

2020 Maych, GLOBE International Virtual Science Symposium, mentoring Dominical Students Will their projects.

2020 April 30 Presenter, GLOBE LAC international webinar: How to Organize a Virtual Science Fair?

2020 May 28 Presenter, GLOBE LAC international webinar: How do we use GLOBE protocols to measure air pollution?

2020 June Recognized for Innovative Design Leadership at COVID-19 Engineering Challenge, International Council of Associations for Science Education.

2020, June 22 MICROSOFT GLOBAL LEARNING Week, Guest speaker to present our virtual GLOBE Science Fair using TEAMS with virtual international judges from 8 countries.

2020 September 15-Present, Microsoft Latin America Education Advisory Board, member. Promoting the GLOBE Program to all the Microsoft Schools.

2020 October 1st Instagram Live event through our Instagram account: @GlobeDR Presenting Atmosphere Protocols.

2020 October 12th Virtual Visit using Zoom with Cathedral School High School teachers and students.

2020 October 14th Introduction of a new technology "School Day" to measure the well being of our students and teachers.

2020 October 29, Our Country Coordinator was the Guest Speaker at Microsoft Education Exchange, Sydney Australia

2020 November 1st Instagram Live event through our Instagram account: @GlobeDR Presenting Biosphere Protocols.

2020 November 8 Participation with teachers and students in the First Virtual Congress of the Dominican Republic Ministry of Environment.

2020 November 18-20, Participation in the Latin America and Caribbean Virtual Regional Meeting.

2020 November 22, Agreement with the Ministry of Environment to give webinars, conferences and training in the GLOBE Protocols and projects for Dominican teachers, students and citizen scientists.

2020 December 1st Instagram Live event through our Instagram account: @GlobeDR Presenting Aerosols Protocols.

2020 December 3,4,5 Training teachers in GLOBE Protocols at the Ministry of Environment virtual classroom.

2021 January 23 International Certification as Green Building Trainers, at Sustainable Architecture Week, promoting GLOBE Program atmosphere and biosphere protocols.







2021 February 18, participating with GLOBE Students and Teachers in NASA's Mission Mars Student Challenge.

2021 March, GLOBE International Virtual Science Symposium, mentoring Dominican students with their projects.

2021 March 22-24 Our Country Coordinator was the Guest Speaker at the Virtual Microsoft Education Exchange E2.

2021 April 22 Organizing GLOBE DR Virtual Science Fair to celebrate Earth and GLOBE birthday.

2021 May 6 Our GLOBE Country Coordinator and Deputy Country Coordinator presented in the Ministry of Environment National Webinars > "Saharan Dust and other aerosols consequences in COVID times".

2021 June 10, participation in the "Engage Native Youth using Citizen Science" webinar.

2021 July 12/16, GLOBE Annual Virtual Meeting and Country Coordinators Meeting.

2021 August 9/12 New Teachers introduction to the GLOBE Program, activity organize by Private School Association of Santo Domingo.

2021 September 25th Our Country Coordinator presented the GLOBE projects as best practices at the International Leaders Forum sponsored by Whole Schools.

2021 October 6th, Our Country Coordinator was one of the 6 panelists at the Dominican Ministry of Environment: Virtual Environmental Congress for Educators.

Presentation title: How to create environmental learning opportunities using GLOBE Program Protocols and Projects.

2021 October 11th Presenting GLOBE DR project-> "Bee Alive" introducing the Hummingbirds, Butterflies and Bees protocols to Citizen Scientists at the Town Hall of the National District meeting with all the Neighborhood Associations of Santo Domingo Central Polygon.

2021 October 12th Presenting GLOBE projects at Tech for Good Challenge with SDG 4 - Promoting Lifelong Learning, sponsored by Microsoft.

2021 October 17th International Coastal Clean Up sponsored by Ocean Conservancy and the famous bloggers Jimmy Donaldson "Mr. Beast" and Mark Rober. GLOBE students and teachers from Cathedral (28), Notre Dame School (81), Saint George School (25), New Horizons (20) and Lux Mundi (8) participated. GLOBE Hydrology protocols were presented.

Next Activities

2021 November (Day pending) Mosquito Protocol Workshop for the Ministry of Environment, Environmental Heroes program.



















GLOBE ALUMNI ACHIEVEMENTS

It is also important to highlight the achievements of our GLOBE Alumni that made us proud every day.

1.- Achievement on Mayo 9, 2020

Pontificia Universidad Católica Madre y Maestra recognized the winners of national GLOBE Science Fair 2020 with scholarships for their new environmental careers. Alumni from Lux Mundi, Notre Dame School, New Horizons and Saint Joseph were the recipients.

2.- Achievement on October 20th, 2020 Yamila Franco, GLOBE Alumni from Notre Dame School, Santo Domingo and Victoria University, Canada.

Ms. Franco is Co-Founder of Nyoka Design Labs and was the winner of the startup category of the Canadian Export Challenge Grand Finale with her eco-product: Nyoka Light Wand.

Nyoka Design Labs is reimagining the traditional plastic glow-stick and working towards empowering the next generation of eco-conscious entrepreneurs. Co-Founded by Yamila Franco, Nyoka uses permaculture design, Indigenous earth-caring knowledge, and biotechnology to power their Light Wand – a bioluminescent, non-toxic, reusable glow-stick. "Our Nyoka Light Wand, the world's first plastic-free, non-toxic glow stick is only the beginning as we are now preparing for a bigger crowdfunding campaign that will support us as we build a more sustainable future," said Yamila.

(https://www.startupcan.ca/startup-canada-announces-cxc-2020-grand-finale-winners/)





3.- February 2021

GLOBE Alumni (Notre Dame School) Diego Alberto Monzón was the first student to choose Aerospace Engineering in the history of GLOBE DR. He is the recipient of a scholarship at Miami University, USA. Diego Alberto made a video thanking the GLOBE Program for inspiring him to look beyond the sky and space.

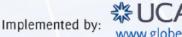
4.- March 14, 2021

Video release as part of the events on the International Day of Mathematics (IDM) featuring Valentina Saavedra (Notre Dame School and GLOBE Alumni) as the first Dominican Student to discover a Planetary System: K2-138 using the Kepler Space Telescope data in the Zoouniverse Exoplanets Program. Ms. Saavedra thanked the GLOBE program "that encouraged me to investigate, to be curious, to be determined and to reach for the stars" (https://www.instagram.com/p/CMa2VRJFxdF/)









EDUCATION

During 2020-2021 our country was in a COVID-19 lockdown that ended e few months ago, with a long list of restrictions. The GLOBE Program was kept active trough national and international webinars, virtual conferences, virtual visits to schools, live virtual interviews, social media and two weeks ago our first Hydrology protocols made during the Coastal Clean Up organized by Ocean Conservancy and famous bloggers.

Dominican GLOBE Schools and universities are using the GLOBE Program as part of their Science, Earth Science, Physical Science, Biology, Chemistry, and Environmental Science Curriculum. Our goal is to reach the public sector to fully promote the program. With the Ministry of Environment agreement and the global need for a change in our carbon print, we are sure we will soon accomplish that goal.

The GLOBE University, Pontificia Universidad Católica Madre y Maestra (PUCMM University) recognized four GLOBE students projects from four GLOBE schools, highlighting their scientific achievements and contributions as winners of the GLOBE DR Science Fair 2020. They also awarded scholarships on their new environmental careers to the GLOBE Schools Alumni from: Lux Mundi, Notre Dame School, New Horizons and Saint Joseph.

For a summary of education events during the 2020-2021, and the GLOBE Alumni achievements, check the lists presented in the introduction.

SCIENCE

We continue working with our popular GLOBE DR project-> "Bee Alive" that promotes phenological gardens with pollinators favorite flowers, water and shelter to study and protect bees, hummingbirds and butterflies. "Bee Alive" was highlighted and presented at the Town Hall of the National District meeting with all the Neighborhood Associations of Santo Domingo Central Polygon on October 11th, 2021.

This year International Coastal Clean Up was sponsored by Ocean Conservancy and the famous bloggers Jimmy Donaldson "Mr. Beast" and Mark Rober. GLOBE students and teachers from: Cathedral (28), Notre Dame School (81), Saint George School (25), New Horizons (20) and Lux Mundi (8) participated. GLOBE Hydrology protocols were presented.

On April 22, 2020, we organized the first GLOBE Dominican Republic and Microsoft TEAMS, Virtual Science Fair to celebrate Earth and GLOBE birthday. We welcomed judges from 8 countries that participated virtually, featuring: Ms. Dorian Janney, NASA; Ian Mackenzie, GLOBE, Bahamas and Sonia Haley, GLOBE Bermuda. This was the first Virtual Science Fair celebrated using TEAMS Virtual Platform. We were highlighted in the local media newspapers. Microsoft also presented this achievement in their GLOBAL LEARNING WEEK to the world, as an example that education and science must go forward besides COVID-19 lockdowns. Some of the Science Fair projects were also presented in the GLOBE International Virtual Science Symposium 2020.

For a summary of science events during the 2020-2021, and the GLOBE Alumni achievements, check the lists presented in the introduction.

Implemented by:

Sponsored by:

Supported by:

COMMUNITY

An important agreement is on with the Ministry of Environment, were we compromised, since November 2020, to participate in national campaigns to educate and train teachers, students and citizens in environmental topics using the GLOBE Program Protocols and Projects, to promote private collaborations to reach the "Sustainable **Development Goals"** that are the blueprint to achieve a better and more sustainable future for all.

We continue working with our popular GLOBE DR project-> "Bee Alive" that promotes phenological gardens with pollinators favorite flowers, water and shelter to study and protect bees, humming birds and butterflies. "Bee Alive" was highlighted and presented at the Town Hall of the National District meeting with all the Neighborhood Associations of Santo Domingo Central Polygon on October 11th, 2021.

This year International Coastal Clean Up was sponsored by Ocean Conservancy and the famous bloggers Jimmy Donaldson "Mr. Beast" and Mark Rober. GLOBE students and teachers from: Cathedral (28), Notre Dame School (81), Saint George School (25), New Horizons (20) and Lux Mundi (8) participated. GLOBE Hydrology protocols were presented.

The participation in the 2020 GLOBE Community Cloud Challenge: "Science is Better Together". Attracted many citizen scientists, students, amateur and professional photographers that are now more aware of the climate impact on our lives and the need to reduce our carbon print. After publishing the pictures in our social media, the participants received with enthusiasm their GLOBE certificates.

For a summary of education events during the 2020-2021, and the GLOBE Alumni achievements, check the lists presented in the introduction.









APPENDIX



Yamila Franco, GLOBE Alumni from Notre Dame School, Santo Domingo and Victoria University, Canada. Ms. Franco is Co-Founder of Nyoka Design Labs and was the winner of the startup category of the Canadian Export Challenge Grand Finale with her eco-product: Nyoka Light Wand.



2020 May 9, The GLOBE University, Pontificia Universidad Católica Madre y Maestra (PUCMM University) recognized four GLOBE students projects from four GLOBE schools, highlighting their scientific achievements and contributions as winners of the GLOBE DR Science Fair 2020. They also awarded scholarships on their new environmental careers to the GLOBE Schools Alumni from: Lux Mundi, Notre Dame School, New Horizons and Saint Joseph.



GLOBE Students to the rescue at the International Coastal Clean Up!







This year International Coastal Clean Up was sponsored by Ocean Conservancy and the famous bloggers Jimmy Donaldson "Mr. Beast" and Mark Rober. GLOBE students and teachers from: Cathedral (28), Notre Dame School (81), Saint George School (25), New Horizons (20) and Lux Mundi (8) participated. GLOBE Hydrology protocols were presented.

THE **GLOBE** PROGRAM



March 14, 2021

Video release as part of the events on the International Day of Mathematics (IDM) featuring Valentina Saavedra (Notre Dame School and GLOBE Alumni) as the first Dominican Student to discover a Planetary System: K2-138 using the Kepler Space Telescope data in the Zoouniverse Exoplanets Program. Ms. Saavedra thanked the GLOBE program "that encouraged me to investigate, to be curious, to be determined and to reach for the stars"

(https://www.instagram.com/p/CMa2VRJFxdF/)

INTERNATIONAL DAY OF MATHEMATICS EVENT

VIDEO RELEASE
K2-138 SYSTEM DISCOVERY

"FIRST PLANET DISCOVERED BY A DOMINICAN STUDENT"

















