Ireland

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Organization and Number of Staff:

GLOBE is coordinated in Ireland by the Environmental Education Unit of An Taisce. An Taisce is an Environmental NGO. The organization has approximately 70 full-time staff. There are 2 full time staff and 1 part time staff member on GLOBE, GLOBE country coordinator, Aileen Bright, Deputy Country Coordinator, Maya Gryesten Fields, and Deputy Country Coordinator, Sabrina Moore

Funding by:

Ireland's Environmental Protection Agency (EPA) is currently funding GLOBE Ireland

Cooperating Organizations/Individuals:

The Environmental Protection Agency is the lead strategic partner for GLOBE in Ireland and is an active member and contributor to the program. The GLOBE program in Ireland works closely with the EPA citizen science and air quality teams. GLOBE also collaborates with local authorities in Dublin and around the country on projects

GLOBE Schools (what types, how many):

The GLOBE program in Ireland works with Primary (ages 4-12) and Secondary (ages 12-18) schools, although most participating GLOBE schools are Secondary schools. Five hundred Irish schools have registered with the GLOBE Ireland Air Quality Campaign since 2019, with approximately **200 schools actively participating in the 2021/22 campaigns**. As of, October 2022 there are 84 Fully Trained GLOBE members, and 900 GLOBE Observers in Ireland

GLOBE Areas you and schools focus on:

The Primary focus of GLOBE Ireland is the Air Quality Campaign, which is run in partnership with the EPA air quality and citizen science teams. The **Air Quality Campaign runs twice a year**, once in the spring and again in the autumn. GLOBE Ireland also promoted GLOBE Atmosphere and Biosphere

protocols to schools and students participating in the Air Quality Campaign. GLOBE primary schools in autumn 2022 have begun working on weather and climate related topics and secondary schools have begun working on GLOBE Hydrosphere protocols as part of workshops.

Number of Schools Reporting Data over Past Year:

In Ireland, most of the GLOBE schools participate in a non-GLOBE **nitrogen dioxide protocol**, data was reported at a national level by over 200 schools using this protocol. In the past year, 7 schools have reported data directly to GLOBE.

<u>Program Implementation, International Cooperation in GLOBE Network, and Activities over Past Year (categorized by GLOBE Strategic Plan 2018-2023 Goals):</u>

1. Education

During the 2021-2022 year, the GLOBE program in Ireland supported over 200 teachers with measuring ambient nitrogen dioxide levels on their school grounds. Teachers were provided with educational resources related to air quality, to aid lesson planning and encourage inquiry-based learning. Schools were encouraged to introduce students to the scientific method through handson learning and meaningful data collection. Participants of the air quality campaign were also encouraged to access GLOBE e-training and take part in related Atmosphere protocols, such as Clouds, Precipitation, and Aerosols.

GLOBE Ireland held its first **5-day Department of Education accredited, Continuous Professional Development (CPD) training** in August 2022. Teachers were introduced to GLOBE Atmosphere, Biosphere and Hydrosphere protocols over the week in conjunction with training on climate education and nature-based solutions.

2. Science

The Irish EPA provided scientific guidance relating to the Air Quality Campaign. GLOBE schools benefitted hugely from the **active involvement of EPA** staff in many aspects of the program over the year. The Air Quality Campaign, in particular, has benefited immensely from the support and active participation of the EPA Citizen Science and Air Quality teams. GLOBE Ireland has also benefited from collaborations with a research botanist and geography professor from Trinity College Dublin on our teacher training in August, and our Climate Action Week workshops. We also engaged with a University College Dublin geographer on the **urban heat island effect** and an architect on related citizen science projects in Dublin

3. Community

The GLOBE Ireland community grew this year due to our growing online presence and newly established collaborations with universities, Green Schools teams, local authorities, and local community officers. On May 10th, 2022, the GLOBE programme held a **virtual online event to celebrate the successful completion of the 2021/22 campaigns Air Quality campaigns**. We were delighted to be able to celebrate the achievements of the teachers and students that worked so hard during the year. Over 200 people attended the virtual event, including teachers and students that took part in the Air Quality campaign, along with GLOBE Director, Tony Murphy, the Irish Environmental Protection Agency (EPA) Programme Manager, Andy Fanning, EPA representatives from the Citizen Science team and scientists from University College Cork and Trinity College Dublin. We were also joined by GLOBE Europe Regional Office, Dana Votapkova and Lenka Kleger, and GLOBE Malta coordinator Ramona Mercieca.

Students presented air quality stories from four secondary schools and one primary schools. The students presented their air quality findings and spoke about the traffic-related pollution pressures that exist at their school. All students demonstrated an impressive depth of knowledge and scientific reasoning skills. We were delighted that a GLOBE Malta, St Michael's school could

present their quality story too. The event also included two keynote speakers, Aine O'Loughlen from Green Schools Travel, who spoke about promoting active travel to improve air quality at and around schools and Natalie Gravett, a transport planner from ARUP, who spoke about city planning and air quality.

4. Technology

We **promoted the GLOBE Observer App** to many teachers; they found the format and design very easy to follow. Teachers were also introduced to the GLOBE visualization tools through demonstrations online. GLOBE was delighted this year again to be able to use the **EPA visualisation website**, developed by the EPA Analytics team. This allowed campaign participants to view nitrogen dioxide results in map and/or graph format. NO₂ data could be viewed over multiple campaigns and schools could clearly compare their schools' results to other schools nearby and with similar aspects.

5. Communications

The Irish GLOBE program regularly communicates with schools via newsletters, webinars and by email. We **expanded our communications this year on social media** and grew our audience across Twitter and Facebook and began a new Instagram page. Social media was used to recruit new schools, promote GLOBE campaigns, connect with Air Quality campaign participants and encourage collaboration between GLOBE Ireland and the greater GLOBE community. We also began a **monthly newsletter that goes out to over 600 teachers in Ireland.**

Plans and Ideas for Next Year:

- Work with the EPA to support objectives of the EPA Citizen Science strategy through the GLOBE Program
- Provide support, guidance, and in-person and online training to teachers to implement GLOBE in schools
- Engage students via in-person school-based GLOBE workshops and online via webinars
- Promote and coordinate a GLOBE Air Quality campaign (NO₂) in October 2022 and October 2023
- Further develop, promote, and coordinate *Pilot* GLOBE Tree/Phenology Campaign in Spring 2023
- Promote and coordinate a *Pilot* River Ecosystem Campaign in Spring 2023
- Develop partnership with Fingal CC on the 'weather stations for schools' initiative, incorporating GLOBE Atmosphere protocols and linking to Nature Based Solutions and Climate Action
- Establish collaborations with GLOBE countries on specific Irish measurement periods
- Identify opportunities to participate in international and regional GLOBE campaigns and projects
- Continue to work with the GLOBE Implementation Office to develop the NO₂ investigation as an official GLOBE protocol