

Inter-Commission B7-C1 WG "Achieving Sustainable Development within a Quality Lighting Framework" annual report

https://www.iau.org/science/scientific_bodies/working_groups/279/

The goal of the working group focuses on education, since through educating future citizens will help reorient education towards sustainable development, in order to empower the world's 60 million teachers to become key agents of change, and through them reach local and global authorities and improve the situation.

Using as a tool successive programs, as good practices and as a source of organized integrated knowledge we intend to establish a strong professional network with pre-service teacher courses as well as the in-service education of teachers, at all levels, education policy-makers, and authors of educational materials, with final target to integrate the concept of quality lighting and the Light Pollution topic to the national educational environmental curriculum in the context of the UN protocol on sustainability under resolution 42/187 and the IAU Resolution 2009B5 Right to Starlight.

Members of the B7-C1 WG "Achieving Sustainable Development within a Quality Lighting Framework" annual report: Elizabeth Alvarez del Castillo, Pedro Augusto, Zouhair Benkhaldoun, Sze-leung Cheung, Eduardo Chung, Rosa Doran, Richard Fienberg, Beatriz García, Kevindran Govender, Richard Green, Andreas Hänel, Josefina Ling, Margarita Metaxa (Co-Chair), Mehmet Özel, José Rodríguez Espinosa, Pedro Russo, Jun TAO, Ha Trần, & Constance Walker (Co-Chair)

Summary of Work Done

This group is working closely with the IAU Office for Astronomy Outreach (OAO) in all its activities for obvious reasons.

- **IAU first e-Light pollution exhibition and talk Aug, XXX IAU General Assembly, 2018**

<https://www.iau.org/public/oao/e-lp/>

Inter-commission C.B7, C1, the committees C.C1, C.B7 and the Office for Astronomy Outreach (OAO) organized the first e-Light Pollution exhibition, with 100 photos of observatories around the world, to show how light pollution affects everyone, as well as its impact on astronomical observations. The event was introduced by the co-chairs (in talks) as a satellite event during the XXX IAU General Assembly 2018, at the **Museum of Natural History** in Vienna, explaining as well the science of Light Pollution and suggest solutions to control it.

- 2. world-wide children's art campaign with the central theme:
"Together under one sky!" Science and Art raise awareness about The Light Pollution Problem

<https://sites.google.com/site/ppetogetherunderonesky/>

The Children's Art Gallery of Greece (CAGG) in association with the Inter-Division B-C Commission Protection of Existing and Potential Observatory Sites, the Commission C.C1-Education and development of the Astronomy, the Commission C.B7 Protection of Existing and Potential Observatory Sites, and the Office for Astronomy Outreach (OAO) , under the auspice of Division C, organize an international art competition, inspired by the 100th anniversary of the IAU, with the main purpose to sensitize the young generation about the importance of the NIGHT SKY (NIGHTSCAPE), as the common view that connects us across the world, creating understanding and friendship, vanishing the political borders and the cultural differences. With more than 400 entries mainly from Greece, 70 artworks were selected carefully with art and science criteria.

- At the heart of IAU is the desire to maintain dark, starry night skies, not only for the livelihood of its members but to preserve humanity's cultural heritage for at least the next 100 years. In line with this goal, the Commission C.B7 (on site protection) with its IAU partners, Commission C1 (on education) and the Office of Astronomy Outreach (OAO), have created a number of education events before and after the IAU General Assembly (GA) for its members and the general public. During the week before the GA, three teacher conferences were hosted by Global Hands-on Universe, Galileo Teacher Training, and Commission C1. Each conference allowed the WG to provide a training and talks on the Quality Lighting Teaching Kit. And C.B7 along with members of the WG had organized on the last night of the IAU GA, a trip to a dark and starry night sky location only 35 km from Vienna called the Großmugl Starlight Oasis. Although a good time was had by all, the weather was overcast.
- In a light pollution and radio interference session that the IAU Commission C.B7 organized at Kuffner Observatory before the IAU GA, many of the members of C.B7 and C1 gave education talks (and posters), sharing educational activities promoting dark skies and sustainable development: Beatriz Garcia (Argentina), Fernando Avila Castro (Mexico), Sze-leung Cheung (Japan), Prosperity Simpemba (Zambia), Rosa Doran (Portugal), Alejandro Sanchez (Spain) and Connie Walker (USA) along with newcomers Nuno Gomes (Portugal) and Lucía García (Spain).
- The WG worked with international education organizations to spread awareness of sustainable development and solutions toward light pollution:
 - Sze-leung Cheung and Connie Walker co-chaired the IAU100 [Dark Skies for All Global Project](#) and along with OAO, helped to make the IAU100 Dark Skies Ambassadors into the [IAU Dark Skies Ambassadors](#) to continue their great work;
 - Through co-chair, Connie Walker, a partnership with Laser Classroom allowed them to manufacture the IAU International Year of Light's [Quality Lighting Teaching Kit](#) as the [Turn on the Night kit](#) (at no profit) for the IAU100 Dark Skies for All Global Project. Over 50 IAU countries received 100 Turn on the Night kits in 2019;
 - The IAU through members of the WG collaborated with the [International Dark Sky Association](#) (IDA) to partner with them on International Dark Sky Week;
 - Through co-chair, Connie Walker (Globe at Night director), the [Citizen Science Association](#), [Astronomers Without Borders](#), and [SciStarter](#) promoted the [Globe at Night](#) light pollution measuring campaigns worldwide.