

B7-C1 IAU Inter-Commission WG: Achieving sustainable development within a quality lighting framework

Report for the period Jan to Dec 2017

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We find ourselves at a crossroads where many of our planet's most critical scientific and environmental challenges are occurring when we are not well prepared to address them. Global climate change, loss of night-scape, rising sea levels, changing weather patterns, collapsing fisheries, and habitat losses are real threats to the world-wide economy and our way of life. At the same time, youth continues to fall further behind their global peers in science and math, resulting in the threat of a future where fewer Earth-citizens are prepared for careers that will address these challenges.

The IAU recognized this perilous track and organized this working group, which gives a broad mandate to educate the public about night-scape, astronomy science and stewardship through achieving sustainable development within a quality lighting framework.

Our WG's proposed focus is on education for achieving sustainable development within a quality lighting framework, since through educating future citizens we will help reorient education towards sustainable development, as this will empower the world's 60 million teachers to become key agents of change, and through them reach local authorities globally and change the situation. For this reason, our objective is to "Establish a National Contact in each country with active members of the Commissions C.C1 and C.B7, through the main observatory of the country or other institution willing to support the activities of the National Contact, with the commitment to the transfer and sharing of knowledge."

We propose to use as a tool the following successive programs, as good practices and as a source of organized integrated knowledge:

1. Globe at Night (<https://www.globeatnight.org/>)
2. Cosmic Light EDUKit (<http://nuclio.org/cosmiclightedukit>)
3. IYL Quality Lighting Teaching Kit (<http://www.noao.edu/education/qltkit.php>)
4. NASE KIT (<http://itedamza.frm.utn.edu.ar/wp-content/uploads/2014/07/PL-IAU-FM-NASE1.pdf>)

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 a final target being to integrate the concept of quality lighting and to bring the topic of Light Pollution to the national educational environmental curriculum. Already a strong team from all over the world has been gathered as a first nucleus for this initiative. We all hope and count on more participation so as to achieve our goals.

Last year our Inter-commission WG was established and as it was planned, we gathered a strong team from all over the world as a first nucleus for this initiative, as is shown on the web-page. We all hope and count on more participation so as to achieve our goals.

The first meeting of the inter-commission WG was held in Utrecht in July 2017 during the IAU-Symposium for education. All the new goals and actions are gathered on the web-page kindly hosted at the University of Arizona by Connie Walker.

These activities will be promoted by the National Contact in each country so as to achieve our goal for sustainable development within a quality lighting framework.