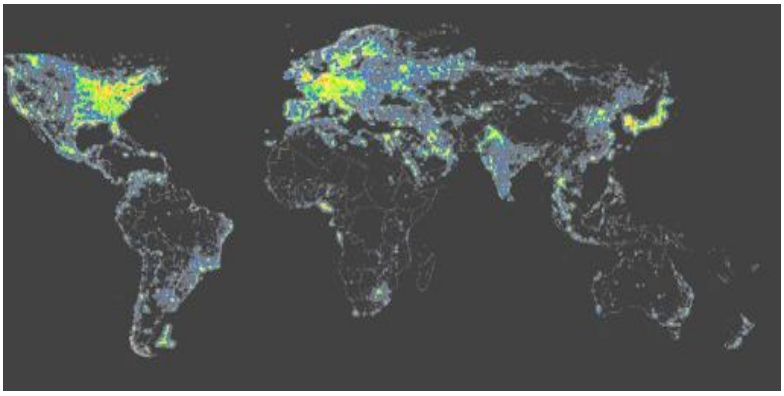
Dark Skies Outreach to Sub-Saharan Africa Program

The International Astronomical Union (IAU) promotes the science of astronomy as well as astronomical education through international cooperation. The IAU's Office of Astronomy for Development has provided the National Optical Astronomy Observatory (NOAO) with a grant to deliver a "Dark Skies Outreach to Sub-Saharan Africa" program to at least 10 schools or institutions in 10 different countries. NOAO is the U.S. national research and development center for ground-based astronomy and its Education and Public Outreach group is internationally known.


Photo by Wally Pacholka



Why "Dark Skies Outreach to Sub-Saharan Africa"?

The dark nighttime sky is a natural resource that is disappearing rapidly all over Earth. Reducing excess light is critical to astronomy, but inefficient, artificial lights also affect human health, plant and animal ecosystems, and are driving up energy costs and consumption. This program helps students identify wasteful and inefficient lighting and provides ways to reduce consumption and keeps energy costs in check. It will also inspire students to be responsible stewards in helping your community safeguard one of Africa's natural resources - a dark night sky.

Helping Educators with Well-Tested, Standards-Based Instructional Materials

The National Observatory has developed a **"Dark Skies Outreach to Sub-Saharan Africa Kit"** which will be given to every participating educator. NOAO's previous teaching kits have been judged as exemplary products by the U.S. National Science Teachers Association and the Dark Skies education kits have received excellent educator reviews. Each educator kit includes complete instructional guides and supplies for 6 activities and a project on dark skies and energy education. The $500 kit will belong to the educator completing the program. To address a wide range of educational standards**,** the kit is designed to develop the concept of dark skies and energy usage and conservation across a wide range of curricula, including science, math, writing, and art. Six Google+ hangout sessions, which include 3 scaffolded program activities and 1 final project, will be scheduled from June to mid-November. From the end of November until mid-December final class projects (such as posters or movies) will be shared on the program's website. The entire program is designed to help educators work with students, parents, and the community to identify dark sky resource, lighting and energy issues, and to assess their status, efficiency, and effectiveness.

How Can My Class Take Part?

All participating educators attend the 6 Google+ hangout sessions from June to November. Along the way, your class completes the first 3 scaffolded kit activities out of 6. (The last 3 activities provided in the kit are optional.) This is followed by a class project to present on-line as either a poster or movie by mid-December. Contact: Connie Walker at cwalker@noao,edu.

Your Dark Sky & Energy Kit Includes…

- Complete supplies and guides for 6 hands-on, minds-on activities
- A digital light brightness meter
- A digital sky brightness meter
- A camera with a diffraction grating
- 5 different sets of game cards
- Other enriching resource materials