

Introduction to UN ALAN policy draft

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Overview

What is the Problem?

- Light Pollution is not widely recognized as *a problem*.
- Commonly assumed that because light is beneficial, *more must be better*.
- Sparse *patchwork of local laws* has at best stopped loss in a few locations.

But there are hopeful signs....

- EU 2030 Biodiversity Strategy includes *reduction targets for light pollution*.
- IUCN World Congress 2020, 84 - *Taking Action to Reduce Light Pollution*.
- *UN Migratory Species* - resolution on light pollution.
- Growing interest in *dark-sky tourism*

What is needed?

- Awareness and Education
- Expand beyond astronomy
- Reframe the narrative around light/safety
- Embrace quality light & natural darkness

A holistic approach

- Short-term installation-based controls
- Long-term regional approach to roll back losses and restore the night sky

Urgency to act, now!

Principles

- | | |
|-------------------------------------|--|
| 1. Integral Approach. | <i>Light pollution is a transversal problem.</i> |
| 2. Inter-territoriality. | <i>Photons know no borders.</i> |
| 3. Goal-oriented. | <i>Establish definitive goals.</i> |
| 4. Energy efficiency. | <i>Climate change cannot be the only target.</i> |
| 5. Environmental protection. | <i>Artificial Light At Night is a pollutant.</i> |
| 6. Minimum use. | <i>Adopt the principle of lesser emissions.</i> |
| 7. Plurality of sources. | <i>Legislation must encompass all light emissions.</i> |
| 8. Long-term planning. | <i>To get to maximum emission caps.</i> |
| 9. Institutional liability. | <i>Responsible bodies need to be identified.</i> |
| 10. Active remediation. | <i>Clear plans to get below caps.</i> |
| 11. Continuous monitoring. | <i>Routine recording by public agencies.</i> |
| 12. Transparency. | <i>Access to open data.</i> |

The Three Principles - P3

Preventative

*Act now to prevent
future damage
before it occurs.*

Precautionary

*Lack of scientific
certainty should not
be used as a
reason to postpone
cost-effective
measures.*

Polluter Pays

*Internalize the cost
of the impact so
the polluter bears
the true cost of their
actions.*

Artificial Light At Night needs to be treated as a potent pollutant

A strategic approach to turning the tide

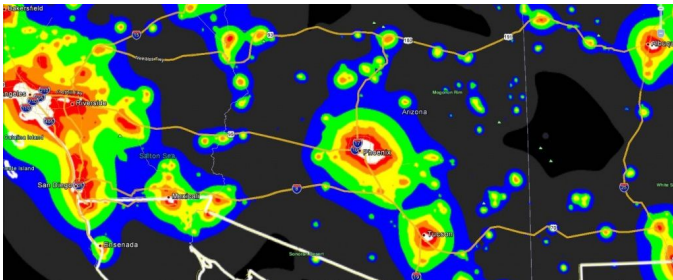
Globally: UN recognition of ALAN as global problem

National Scale: Light Pollution recognized as an environmental pollutant

Regional Scale

Sky quality targets for critical sites

Establish an admissible quota of ALAN.



Project Scale

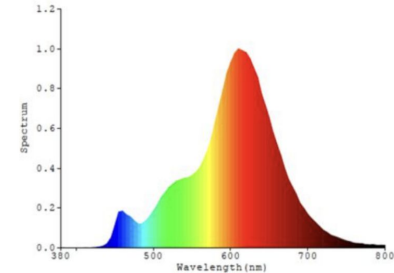
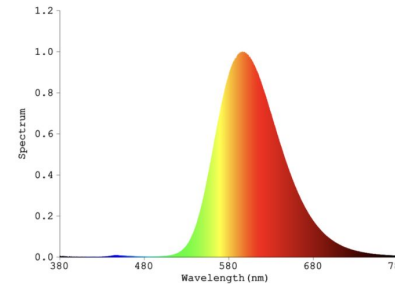
Establish project-level controls.

Useful - Targeting - Output - Controls - Color



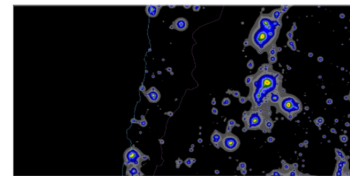
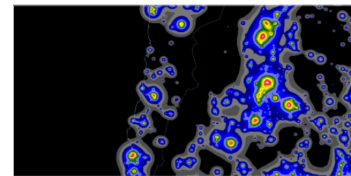
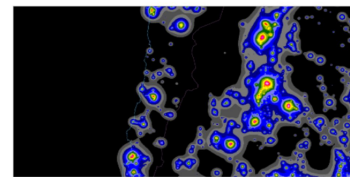
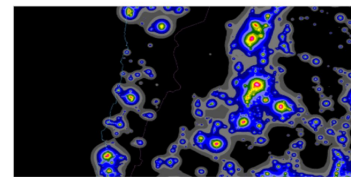
The usual technical requirements for a less impacting installation (project scale) are:

- ★ Lowest possible lighting level
- ★ Fully shielded fixtures
- ★ Keep the glare as low as possible
- ★ Light only when there is someone who need and use the light
- ★ Use less impacting light spectra



Control over the territory (regional scale) via allocation of admissible quota of ALAN driven by the fulfillment of red-lines target indicators of LP

- ★ If values are yet to be surpassed, then present values (red-lines indicators) should be taken as permanent limits for astronomy research, environmental protection and biodiversity and health.
- ★ Distribution of light emissions or reduction quotas among districts and municipalities shall be handled with social solidarity criteria. It requires a consensus about the reasonable required light.
- ★ Allocation could be flexible: a cap and trade scheme for distribution of quotas between municipalities can be implemented to accommodate new new local lighting needs.





**DARK
& QUIET
SKIES**

Thank you for
your
attention!