Citizen Science and the changing role of the public in creating and using environmental information

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40.1. In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels.
Emergence of a new era


‘Often the best information comes from those who are closest to it, and it is important we harness this local knowledge if we are to tackle climate change adequately... people are encouraged to give their own opinion on the quality of the beach and water, to supplement the official information.’
Figure 25.1: Some of the benefits of citizen science

**Individual Citizen**
- Learn observational and analytical skills
- Gain a better understanding of the natural world
- Job opportunities
- Capacity building

**Governments**
- Lower cost of data collection
- Wider spatial and temporal coverage of data
- Promote environmental stewardship

**Communities**
- Monitor the health of the environment
- Increased interaction of the community
- Promote environmental stewardship

**Scientists and Researchers**
- Large numbers of participants reduce workload
- Scientists are able to build connection with community
- Teach people how to research

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- **Crowdsourcing** - the number of people that edited the information
- **Social** - gatekeepers and moderators
- **Geographic** - broader geographic knowledge
- **Domain knowledge** - the knowledge domain of the information
- **Instrumental observation** - technology based calibration
- **Process oriented** - following a procedure
This project has received funding from the European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme (Grant agreement No. 694767)
Environmental information, and public access to it, went through huge transformations over the past five decades – we now entering an era where the public are full partners in creating and using it.

Citizen Science can produce high quality data, but require attention and management.

There are growing network for best practice, guidelines, and knowledge sharing – join them!