# Ideas into action

**Dr Stefan Lang, Z_GIS Research Coordinator at the University of Salzburg, charts the journey to transfer ambitious concepts of safeguarding biodiversity into concrete policies…**

Biodiversity – the variety of lifeforms – is a strong concept in the objective of unifying global endeavour, but vague when it comes to concrete measures. Is it a programmatic, metaphorical, or a mere statistical concept? Or all of these combined?

Whether measurable, observable, or otherwise, biodiversity has become a keyword for shaping and bundling political will. By the end of 2010, it had become clear that the political commitment had failed – the global society had not managed to halt the loss of biodiversity. But who is responsible for judging how far we have succeeded or failed so far?

Likewise, political aims need to be strong. They need to be framed in simple terms, to be conceivable by the public at large. When the European Strategy for Biodiversity – in its new and amended form – is boiled down to more tangible (and measurable) outcomes, it may come at the expense of parts of its original ambition, but at the same time should strengthen its power of implementation.

This European attempt to safeguard biodiversity is a notable one. A set of verifiable goals are listed. These are closely related to the European Habitat Directive (HabDir). By 2020, the strategy is to double the number of sites with a reported favourable status. Of course, this is just another political aim, but one that is much more concrete than those before it.

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Most remarkably, it is a policy that reaches down to political ground, to the level of single site managers, and ultimately to each citizen. With responsibility thus distributed, and not left purely to political decisions, we may succeed in such a global endeavour, on an issue that is crucially important yet difficult to grasp.

In most forms of life, diversity, in terms of diversification, has turned out to be an asset. It has led to stability and resilience (ie in coping with disturbance), that eventually could turn into a survival strategy. In terms of habitat quality, diversity entails quality of life. If we convert all areas to biofuel, for example, we may serve secondary aims but we otherwise destroy the fundamental, direct source of our systemic integrity.

Biodiversity – the information content of life – requires adequate technology. Satellite Earth observation has started to become a ubiquitous means – a ‘democratic tool’ – to observe what’s going on in the different levels of political implementation. Together with in-situ measurements, including people’s measurements (people as sensors), it has become a very powerful monitoring device. Monitoring is a political requirement within the European Directives.

The democratisation of information tools has made monitoring a permanent ‘status’, from a temporal or a spatial perspective. GMES, the EC-ESA conjoint initiative, has opened a lot of byways to SMEs and individual research organisations by the stimulation of downstream services. Such downstream services seek new emerging areas, where technology would make a difference.

Biodiversity monitoring is one such area. Looking at the global importance of the undertaking, it may eventually lead from a byway to a mainstream domain of information demand. Institutions that implement European environmental policies on different levels have a need for conditioned spatial information to meet their requirements.

Even European Union institutions, which usually receive aggregated information, seek new sources of independent information, first hand, not pre-filtered or averaged. All such information will make up a Shared Environmental Information System, the SEIS. Although still a vision at present, it is an inspiring one – and hopefully a bearing pillar to safeguard biodiversity.

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