

Global policy framework for holistic land use policy

The challenge

The degradation of ecosystems and their services is an increasing challenge for the whole world, which is accompanied with an increasing competition for land as a resource. While governments have given several responses through establishing protected areas, the Natura 2000 network in Europe, ecological networks, the introduction of agri-environmental schemes and other sectoral integration measures, their results remain scattered and the overall goal of halting biodiversity loss will not be achieved by 2020. At the same time there is a growing social and political demand for smart, sustainable and inclusive growth, which leads to job creation, poverty reduction and transition to a low carbon economy.

This calls for a holistic approach in developing policy responses, which is efficient in allocating financial resources and can deliver economic, social and environmental targets at the same time. A holistic policy framework on land use contributes to a development path that is:

- **smart**, as it builds on best available knowledge and technologies for benchmarking in the various types of land use. It requires research, innovation and capacity building for improving the performance of land users (farmers, nature conservationists, urban planners and architects, infrastructure planners, etc.) to meet national targets;
- **sustainable**, thanks to a decisive move towards a circular, zero-emission economy realised through land use decisions (e.g. through criteria for biomass production and more extensive land use and emphasising adaptation to and mitigation of climate change in land use); and
- **inclusive**, with a strong emphasis on job creation and poverty reduction. This is ensured through the more labour intensive land uses, such as implementing and maintaining green infrastructure, more extensive farming techniques, and the increased demand for high skilled jobs in planning, research and innovation.

One framework to deliver multiple benefits

The regulation of land use should realise that all land use types (agriculture, recreation, urban, infrastructure, forestry) are shifted towards more and more environmentally friendly uses, and landscape polarisation (i.e. that more extensive use at one place is accompanied by more intensive use at other), which the EEA pointed out in the SOER 2010, is avoided. This can be only achieved if land use is regulated within one system, otherwise the different responses (European agricultural and cohesion policy, green infrastructure, etc.) result in contradictory measures, where the different drivers and interests behind the policies cannot be effectively tackled and aligned. *This framework links the necessity of preserving and restoring ecosystems and their services with the interest of all land users to deliver positive externalities to society through economic measures.* In addition, it can provide a tool for meeting land take targets and address the competition for land by the different users. Also building on the concept of payment for ecosystem services, this regulatory system shall integrate green, grey and black infrastructures into the same system, where the fiscal transfers cease to exist, once the ultimate aim of sustainable land use is achieved. The system aims to ensure that different land uses support an optimal mix of ecosystem services at national and international levels.

The land use right trading system

The land use right trading system¹ integrates all land use types related to urbanization, industry, infrastructure, agriculture, forestry, recreation and nature conservation. The regulatory system sets requirements to all land use types and groups them under A, B, C categories. The „A” category is the highest achievable category under which optimal ecosystem services are maintained in the different land use types, „B” is an intermediate status, while „C” category includes intensive land use practices, where ecosystem services are being heavily degraded. All existing commitments from multilateral international agreements, European or national legislation can be incorporated into the criteria of the different land use categories. A controlling institution is responsible to develop a regulatory framework for sustainable use in each land use type.

Land users receive land use entitlements (land use rights) according to the land use category (A, B or C) they fall into, for instance 2 or 1 or 0 per hectares or square meters. One land user could fall under more categories at the same time for the different parts of their land and thus receive a mix of entitlements. Every year the controlling institution (e.g. the state) sets a national target measured in terms of average entitlements for the whole national territory, that has to be achieved as a minimum by all land users in that year (e.g. 1.2 per hectare or square meter). This target is increased annually by the controlling institution in order to gradually shift the land use towards sustainable use in the whole area, i.e. when each land user achieves the maximum 2 per hectare or square meter and fall into category A.

The land users could carry on their activities legally as long as they do meet the national target with their received entitlements. In case they do not possess enough entitlements to carry out their activities (i.e. their land use intensity is higher than the national target), they either change their land use practice partially or entirely; or they buy additional entitlements. Those land users, who perform better than the national target could sell their remaining entitlements for those who could not fulfil the national target. If there are not enough entitlements on the market, additional ones can be bought from the controlling institution.

Land users, who have performed over the national target, can sell their entitlements to the controlling institution, which can be considered as an incentive (and a form of payment for ecosystem services) acknowledging that they produce positive externalities for the society above what is legally required. At the same time, those who could not meet the national target have to pay for the negative externalities produced by them by buying the necessary additional entitlements, if available. In case land users underperform on national level on average relative to the national target, an extra amount from the trade of land use entitlements is accumulated at the controlling institution. This amount can be used for capacity-building of land users to improve land use practices. The system transaction cost is covered by the 0.5 % fee from entitlement selling and purchasing.

As the national target would increase gradually, after a certain period every land user meets the requirements of sustainability in the system. Namely if they would not change their land use practices, they would face an ever increasing financial burden due to the increasing national target and the need to buy the missing entitlements.

When all land users realise sustainable land use, the regulation system reaches its goal, and no further fiscal transfer is necessary. However, if the category A requirements would prove insufficient for achieving sustainable land use after all (or if due to the advancement of knowledge or technology further improvements are deemed necessary in land use practices),

¹ 5 Concept developed by Dr. Iván Gyulai, Ecological Institute for Sustainable Development, member of CEEweb of Biodiversity

the system could be reloaded, meaning that all land users (now in category A) would get into category C again, facing a new set of criteria to meet the renewed national targets.

This regulatory system can be also applied at **international level among states**. Countries applying the system at national level possess already an actual ecosystem services level. Assigning an international target the trade of entitlements can be introduced among the participating states.

Integrating this land use right trading system with an energy quota scheme, a secondary market of environmentally and socially certified products and services, as well as a transition fund to provide a financing mechanism for investments needed for more sustainable land use, could provide the basis for a transition to sustainability.