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Wissenschaftlicher Beirat für Waldpolitik
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Improved financing for nature conservation in Europe after 2020

Statement

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German Advisory Council on the Environment (SRU)

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0 Summary

1. The progressive loss of biodiversity calls for effective measures to improve nature conservation. However, funding for nature conservation in Germany and Europe is currently woefully inadequate. Measures at the European level are financed mainly through a variety of EU funds in the sectors agriculture, business, and fisheries, and also through the LIFE Programme. This dispersed approach has not proved to be effective. A reshaping of European nature conservation financing is therefore necessary in order to achieve the nature conservation goals proclaimed by the EU and by Germany. The German Advisory Council on the Environment (SRU) and the Scientific Advisory Board on Forest Policy (WBW) recommend creating an independent nature conservation fund at the European level which would bring together all the funding measures relating to nature conservation. If this approach is not politically practicable in the EU, then nature conservation should at least be strengthened through the further development of the second pillar of the Common Agricultural Policy. In the longer term, public funds should only be used for the provision, conservation and upkeep of public goods. SRU and WBW encourage the German federal government to further pursue its pioneering role in the EU and to urge the European Commission and the other Member States to support an independent nature conservation funding instrument.

1 The need to improve nature conservation

2. The worldwide rate of loss of biodiversity is dramatic (BUTCHART et al. 2010; NEWBOLD et al. 2016). Changes in land use, non-sustainable agriculture, the increasing amount of land required for settlements and the transport infrastructure and increased pollution are contributing to an unacceptable decline in species and habitats. Since the middle of the 20th century, the massive impact of humans on ecosystems has led to a largely irreversible loss of biodiversity. Increasingly, climate change is also contributing to these losses (EEA 2015; MAXWELL et al. 2016). The regionally varied extinction rates can in places exceed the natural species loss by as much as three orders of magnitude (MA 2005). As a result of the damage to ecosystems and their functions, the planetary boundaries for the rate of biodiversity loss have already been exceeded (ROCKSTRÖM et al. 2009).

3. Humans are dependent on intact ecosystems that provide services such as fertile soils, nutrients, clean water and air, regulation of the climate, as well as offering recreational benefits (MA 2005). The current and future foundations of human existence are directly dependent on healthy terrestrial and marine ecosystems (ROCKSTRÖM and KLUM 2016; CARDINALE et al. 2012). Nature conservation is therefore important not only in its own right, but also due to ecological, societal and economic considerations (BMU 2007; NIEKISCH 2016; SRU 2016b, Item 337–340). For example with regard to ecological considerations, nature conservation is necessary because the greater the diversity of gene pools, species and habitats then the more able species are to adapt to changing environmental conditions, e.g. climate change (BMU 2007). At the same time, there is much that we do not know about species and the ways they interact with one another, or about the interrelationships within ecosystems, so that changes may well have unforeseen consequences. From a societal perspective, nature conservation is essential for reasons of international equity, the sharing of burdens, the intrinsic value of nature, and also as an obligation towards coming generations (BMU 2007; NIEKISCH 2016; SRU 2016b, Item 337–340). Functioning ecosystems also have an economic value over and above provisioning services (e.g. fibres and food) – in particular arising from regulating services such as water purification, climate regulation. According to COSTANZA et al. (2014), the ecosystem services have a global monetary value of US$ 125 to 145 trillion per annum. The annual financial loss due to the destruction of ecosystems as a result of changed land use is estimated at US$ 4.3 to 20.2 trillion. Economic evaluations focus mainly on individual ecosystem services and do not register the full range of services. They are therefore better suited to show the effects of interventions rather than the overall value of ecosystem functions and services (TEEB 2010).

4. The state of biodiversity in Europe is worrying and is seen as a major challenge for the European Union (European Court of Auditors 2017). Assessments of the conservation status are unfavourable for 60 % of the plant and animal species protected by the Habitats Directive 92/43/EEC, and for 77 % of the habitats, of which nearly half are threatened by further deterioration, in particular grassland, moors and marshes (EEA 2015). The unfavourable category is further subdivided in unfavourable-inadequate and unfavourable-bad, depending on whether changes in management can improve the situation or there is a risk that a species or a habitat can be eradicated, at least regionally. A key contributing factor in Europe is human intervention in natural systems, in particular through agriculture, leading for example to hydrological changes or the fragmentation of habitats and the blocking of corridors for the migration of species (European Commission 2015; BfN 2015; GOSSNER et al. 2016). The intensification of agriculture has an impact on biodiversity and the functioning of many ecosystems, e.g. through the use of high levels of crop protection products and fertiliser. At the same time, valuable forms of extensive farming that promote biodiversity are being abandoned (EEA 2015).

5. If the problems were not addressed, this would lead to a further degradation of ecosystem services (MA 2005). In view of the poor state of habitats, the growing loss of biodiversity and the direct dependence of humans on intact natural systems, rapid and effective action is urgently needed (BMU 2007; EEA 2016; TITTENSOR et al. 2014; BUTCHART et al. 2010). At the international and European levels there are various

legal obligations and strategies for the protection of biodiversity that have to be implemented at the national level. These include in particular the Convention on Biological Diversity (CBD), the Biodiversity Strategy of the EU (European Commission 2011b), the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals), and the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats). There are also key EU directives on nature conservation and national strategies, such as the Biological Diversity Strategy in Germany (BMU 2007). The Agenda 2030 for sustainable development concluded by the international community in 2015 aims to stop the further loss of biodiversity by 2030 (cf. SRU 2016a). In its Biodiversity Strategy, the EU set itself an even more ambitious goal of achieving this target by 2020 (European Commission 2011b).

6. Currently, the most effective European nature conservation instrument to implement the obligations under the CBD and the Bern Convention is the Natura 2000 network of protected areas. With more than 27,000 protected areas over nearly a fifth of the area of the EU it is the largest network of its kind in the world (EEA 2015). Natura 2000 brings together the areas protected in accordance with the EU nature conservation directives (the Habitats Directive and the Birds Directive 2009/147/EC), for the preservation of specific species and types of habitat. The goals for nature conservation are anchored in these EU directives and the EU Biodiversity Strategy. The European conservation measures address above all the preservation of natural habitats and the wild fauna and flora. However, protected areas alone are not able to compensate for the widespread impairment of biodiversity, so that the loss of biodiversity is continuing. Furthermore, Natura 2000 is not a static concept. In addition to maintaining and creating habitats, it is important to link areas together to provide corridors for migrating species and to allow genetic exchange between populations. This makes it possible for species to spread to new areas as they adapt to changing climate conditions. In order to support this and to maintain or improve the status of protected species and habitats within and outside the protected areas, there will have to be a marked improvement in the implementation of EU nature conservation directives and the other strategies and goals for biodiversity conservation at European, national and regional levels (e.g. BMUB 2015a; BfN 2014; European Commission 2016a). In general, it will be necessary to strengthen the overall structure of biodiversity conservation and to improve the implementation of measures. As an example, implementation deficits in Germany led the European Commission to initiate infringement proceedings in February 2015. They criticised the failure to assure legal protection and determine conservation measures for sites of the Natura 2000 network.

7. Nature conservation is severely underfunded in the EU and this is criticised by various political bodies and societal agencies, such as the nature conservation associations (PECHAN 2016; European Commission 2016a; NABU 2015). At the same time, costs are rising for nature conservation measures that provide economic incentives for agriculture and forestry. Land users who take part in agri-environmental programmes or contractual nature conservation measures tend to suffer from lower yields. If they are not offered sufficient compensation this can result in loss of income. However, nature conservation does offer some independence from market fluctuations that can stabilise revenues, provided that the payments offered are structured appropriately. Economically more attractive alternatives limit the demand for agri-environmental and contractual nature conservation measures, and rising prices for land and leases tend to increase the financial requirements for nature conservation. However, there are also considerable societal benefits to be considered. A European Commission study on the economic benefits of Natura 2000 areas concludes that these areas provide ecosystem services with a value in the order of EUR 200 to 300 billion per annum (European Commission 2013).

Currently, a debate is going on among politicians, association representatives and scientists about how to improve the funding for nature conservation at the European level. The aim must be the effective and cost efficient protection of biodiversity. With this Statement, the German Advisory Council on the Environment (SRU) and the Scientific Advisory Board on Forest Policy (WBW) wish to contribute to this discussion.

2 Funding requirements for nature conservation

8. In order to achieve the goals that have been set for nature conservation in Europe, it is necessary to provide funding for on-going measures and one-off investments in fields such as contractual nature conservation, species conservation, compensation payments, land purchases, biotope management, and renaturation. In addition, there are also costs for planning, monitoring, PR work, and personnel. There is no reliable information about the overall costs associated with the implementation of the European nature conservation goals. There is only a preliminary estimate of the costs for the implementation of the EU-nature conservation directives (Habitats and Birds Directives). In 2011 it was assumed that the EU-27 Member States (without Croatia) would require investments amounting to EUR 5.8 billion per annum (European Commission 2011a). This figure has not been updated since and can be considered too low in view of the developments in the interim period.

The prioritised action frameworks (PAFs) in accordance with Art. 8 Habitats Directive are the central planning instrument for the implementation of the Natura 2000 network. They lay down priority goals and measures on the basis of which the financial requirements can be estimated. However, complete cost estimates are frequently lacking in the management plans

for the areas, so that the requirements cannot be registered in full (European Court of Auditors 2017).

Financing requirements at the EU level

9. In the "Regulatory Fitness and Performance Programme" (REFIT), the European Commission subjected the nature conservation directives to a fitness check, covering their effectiveness, efficiency, relevance, coherence and the EU value added. The conclusion was that both directives are highly relevant and fit for purpose, but that substantial improvements are needed in their implementation. This includes in particular inadequate funding and the lack of consideration of biodiversity concerns in other sectors – in particular in agricultural policies (European Commission 2016a; KETTUNEN et al. 2017). For example, German bioenergy policies and the associated rise in land prices in recent years have increased the need for nature conservation and at the same time limited the scope for action (Item 20). The European Commission decided to develop an action plan to address shortcomings and improve implementation of the nature conservation directives. Although the financing of nature conservation measures has on the whole been improved as a result of the Natura 2000 network, the European Court of Auditors concludes that the provision of EU funds to support the administration of the network has so far been unsatisfactory (European Court of Auditors 2017).

In its report on the mid-term review of the EU's Biodiversity Strategy in 2016, the European Parliament expressed concern about information deficits regarding the funding and financing of nature conservation by each Member State. It called on the European Commission and the Member States to compile the relevant national budget lines without delay (European Parliament 2016). There is also hardly any data about funding for the implementation of the directives beyond the Natura 2000 areas, for example species conservation programmes or coherence measures.

Financing requirements in Germany

10. The Federal working group on nature conservation, landscape management and recreation (LANA) has provided an estimate of the financial requirements for the implementation of the EU nature conservation directives in Germany (PECHAN 2016). It concludes that under current conditions, at least EUR 1.4 billion would be required annually in Germany, or EUR 17 per person per annum. This would cover the funding for ongoing measures and one-off investments in the terrestrial sector. However, measures in the marine sector and measures in sectors going beyond the implementation of the Habitats and Birds Directives were not taken into consideration. Earlier estimates on the financing requirements for the implementation of Natura 2000 in Germany and for achieving the goals of the national biodiversity strategy ranged from EUR 1.1 to 3.26 billion annually (HAMPICKE et al. 1991; WÜSTEMANN et al. 2014; HAMPICKE 2014). But since they were based on differing assumptions about the framework conditions and the goals, these cost estimates are not directly comparable.

3 Previous financing of nature conservation

11. The so-called "multiannual financial framework" of the EU in accordance with Article 312 of the Treaty on the Functioning of the European Union (TFEU) determines the levels of expenditure and estimated revenues for a period of at least five years (currently seven). A considerable, though declining, proportion of the EU funds goes into the Common Agricultural Policy (CAP), whose funding guidelines are generally also determined every seven years. The CAP is based on two pillars with different funding objectives. From 2014 to 2020, market-related expenditures and direct aid for farmers under the first pillar of the CAP amount to EUR 312.7 billion (29 % of the total EU budget). This includes a basic premium and a premium for environmental services, the so-called greening (see Item 32). The second pillar currently subsidises rural development with EUR 95.6 billion (or 9 % of the total EU budget), including agri-environmental and climate action measures (Section 3.1). In addition to EU funds there is also co-financing provided by national governments and regional and local authorities. The Member States can also transfer up to 15 % of the money from the first to the second pillar. Currently Germany transfers only 4.5 %. On 10 March 2017, the *Bundesrat* (Upper House) proposed increasing this proportion to 6 % (Bundesrat 2017).

The EU is obliged under Article 8 of the Habitats Directive to take part in the funding of the Natura 2000 network. However, estimates suggest that at most 20 % of the costs of Natura 2000 are covered by the EU budget (European Commission 2011a; KETTUNEN et al. 2011). Here again the underlying data are in need of updating. The additional national funds are not sufficient to close the funding gap (KETTUNEN et al. 2017).

Since 2007, Natura 2000 and other nature conservation measures have been funded not only through the LIFE Programme but also by means of an integrated approach through various EU funds in the sectors agriculture, business, fisheries, and social affairs (the latter only until 2013). For this purpose the European structural and investment funds are available: European Regional Development Fund (ERDF), European Social Fund (ESF), European Maritime and Fisheries Fund (EMFF), European Agricultural Fund for Rural Development (EAFRD), and the Cohesion Fund (CF) (European Commission 2016c). In the period 2007 to 2013, more than 90 % of the EU funding for Natura 2000 came from the EAFRD, the ERDF and the LIFE Programme (European Court of Auditors 2017). The scope for financing nature conservation in the EMFF was expanded for the current funding period (European Commission 2016c). But since this fund only accounts on average for EUR 31.4 million per

annum in Germany, it is only of minor importance for nature conservation.

The EU sets the framework conditions for the funding period, which covers a period of 5 to 10 years. The priorities for the EU funds are set by the Member States or the regions. In Germany, the federal states *(Bundeslaender)* implement the funding through various programmes. These programmes are not dedicated to nature conservation, but have other (in some cases non-coherent) primary objectives such as the funding of infrastructure measures or the protection of land. With the exception of the LIFE Programme, none of the individual funds has a part of its budget earmarked for nature conservation.

3.1 European Agricultural Fund for Rural Development (EAFRD)

12. The EAFRD, as second pillar of the CAP, is currently the key instrument for nature conservation financing at the European level (European Commission 2016a; 2016c; BMUB and BfN 2013). In addition to agricultural objectives, measure-related, area-related and investment-related nature conservation measures are funded (FREESE 2012). For the period from 2014 to 2020, the EAFRD rural development policy has six priorities, all of which are intended to contribute to the cross-cutting targets of innovation, environment, and climate mitigation and adaptation (Art. 5 Regulation (EU) No. 1305/2013). From a nature conservation perspective, the main focus ought to be on restoring, preserving and enhancing ecosystems related to agriculture and forestry. Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy is also particularly relevant. The EAFRD is the most important financing instrument for nature conservation in Germany, with an annual average of some EUR 1.35 billion allocated for all EAFRD measures from 2014 to 2020 (BMEL 2015). Only a small proportion of this will go towards nature conservation, and in view of the coding used this cannot always be identified as such.

3.2 European Regional Development Fund (ERDF)

13. The ERDF supports the economic development of regions, for example by financing infrastructure projects or medium-sized companies. Some Member States also use the fund to promote nature conservation and biodiversity concerns, so that partially conflicting objectives are pursued. In Germany, the ERDF is not particularly relevant for nature conservation. Between 2007 and 2010, only 0.2 % of ERDF funds were used to promote biodiversity (European Court of Auditors 2014). In the current period, the ERDF calls for a "thematic concentration", with the effect that in Germany nature conservation is only supported to a very small extent through this fund (European Court of Auditors 2017).

3.3 LIFE Programme

14. The LIFE Programme is the only European instrument with a fixed proportion of its budget dedicated to nature conservation. Every year, an average of EUR 500 million is available for the EU as a whole, of which on average EUR 153 million is earmarked for nature conservation and biodiversity. In contrast to the structural and investment funds, the selection and funding is carried out directly by the EU on the basis of specific projects in the fields of environmental protection, nature conservation and climate action. For lighthouse projects in the "Nature and biodiversity" section of the "Environment" sub-programme, up to 75 % can be co-financed. Overall, LIFE makes an important and effective contribution to nature conservation. However, it accounts for some 0.3 % of the total EU budget and only individual projects are financed, so that the programme does not have a significant widespread effect.

In addition, in the period 2014 to 2017 a Natural Capital Financing Facility (NCFF) has been provided with funds from the LIFE Programme and the European Investment Bank. This is expected to allow financing of nine to twelve projects based in the EU-28 with some EUR 5-15 million, either directly or indirectly through intermediaries (European Investment Bank 2017). Projects are financed in the following four sectors: Green infrastructure, Payments for ecosystem services, Biodiversity offsets or compensation beyond legal requirements, and Pro-biodiversity and climate adaptation businesses. These projects contribute towards achieving the goals of LIFE, although the NCFF is not part of LIFE.

Table 1

Further public and private nature conservation funds

Federal funds	Large-scale nature conservation projects, Biological Diversity Programme, Joint Task for the Improvement of Agricultural Structure and Coastal Protection (GAK), National Natural Heritage sites
Federal state funds	Personnel, regional measures on state-owned sites (in particular forests, coastal areas), state programmes, nature conservation NGOs, co-financing of EU instruments and Federal programmes
Local authority funding	Various
Foundations and associations	Regional nature conservation foundations or other foundations (e.g. German Foundation for the Environment, Lotto foundations and to a lesser extent regional, private foundations), operational work/project management, co-financing of state and private projects
Funds of users	Individual fees and levies (e.g. water extraction fees, sewage fees, fishing and hunting license fees)*
Voluntary contributions	E.g. making specialist data available, site monitoring, or PR work
Others	7th Framework Programme for Research (FP7), public-private partnerships, innovative funding instruments

* Also including compensation measures and payments (where not covered by the obligations under Natura 2000), or eco-points as part of impact regulation. However, these are "repair measures" and are more likely to be involved with a net loss of natural resources.

Source: adapted from BMUB and BfN 2013

3.4 Other sources of financing in Germany

15. There are a variety of other sources of financing in Germany at various levels (Tab. 1; BMUB and BfN 2013). Nationally, public budgets and in particular federal state budgets are the most important sources of financing. The Federal Government and the Federal States are responsible for large areas (e.g. forests, former military training areas, post-mining landscapes, moors, mountain regions), which contribute a wide range of nature conservation services. The public sector funds these nature conservation services by meeting costs and providing non-utilisation undertakings. In addition, the "National Natural Heritage" is an exemplary initiative through which 156,000 ha of nationally representative federal land of high conservation value is exempted from privatisation and is transferred free of charge to the federal states, nature conservation organisations, or foundations. Without the contributions of German nature conservation associations and foundations as well as nature conservation volunteers it would not be possible to carry out many nature conservation tasks, ranging from the upkeep of large areas, and the provision of environmental education, to surveying stocks and species. This is particularly important against the background of the personnel cut-backs in the nature conservation administrations in many federal states , despite the increasing variety and complexity of the tasks to be carried out (SRU 2007; EBINGER 2011; KOTTWITZ 2015; VOLKERY 2008; BÖCHER 2016; BOGUMIL et al. 2016; 2017).

4 Deficits in present nature conservation financing

16. Despite many successes, in particular in species conservation, the European nature conservation policies have not stopped the loss of biodiversity. Key reasons for this are that funding for nature conservation is insufficient, and the funds are not accurately targeted (KETTUNEN et al. 2017). As a result of various deficits in the programming of the funds and their administration, not enough money is invested in nature conservation while purposeful consideration is not always given to scientific findings.

4.1 Insufficient funds

Financing is far below the requirements

17. Overall, it must be expected that there is a considerable financing gap for the Natura 2000 network and for further nature conservation measures (European Commission 2011a). In particular there are eligibility gaps for the ongoing management and monitoring (KETTUNEN et al. 2011). No studies exist at the European level on the expenditures and financing requirements for nature conservation measures that also take into account nature conservation goals beyond Natura 2000.

Inadequate utilisation of funds

18. Available funds are inadequate, but they are still not fully utilised (KETTUNEN et al. 2011; European Court of Auditors 2017). The European Court of

Auditors notes that the Member States do not always consider the ERDF as a possible instrument for supporting biodiversity and as a potential source of funding for Natura 2000 (European Court of Auditors 2013). In the previous funding period, twelve Member States allocated less than 0.2 % of their ERDF funds directly for promoting biodiversity. Only in Spain and the Czech Republic was the proportion higher than 2 % (European Court of Auditors 2014).

Inadequate earmarking of funds for nature conservation

19. Within the various sectoral funding programmes, funds are not earmarked for Natura 2000 (European Court of Auditors 2017, p. 18). As a result, other allocations may be made, in many cases for purposes with strong lobby backing. In order to ensure a minimum allocation for nature conservation, a specific proportion of funds should be earmarked for precisely this objective.

Inadequate incentives for land users

20. Nature conservation measures are often in competition with other options that promise better financial returns. At the same time, revenues for farmers have become less predictable. The prices for some agricultural products have become more volatile with the further liberalisation of the markets (e.g. the milk market). It is also to be expected that revenues from the cultivation of biomass for biogas production will decline (SRU 2015, Item 490). The acceptance of nature conservation measures by land users is therefore highly dependent on the levels of payments. In view of the limited availability of funding for nature conservation and the short financing periods, other options for land users often seem more attractive (Item 7). This applies in particular for forest owners, who are offered few contractual nature conservation programmes that can be integrated long-term forest management (BMUB 2015b).

4.2 Deficits in the administration

The challenge of integration

21. Integrating environmental concerns in other political fields is a constant challenge (SRU 2015, Item 575; 2012, Item 709–712). On the one hand, the allocation of nature conservation tasks to departments with another specialisation (agriculture, business, fisheries) can encourage an integrated approach, boost synergy effects, and improve the coordination between the various funding policies. But integration can also lead to the marginalisation of environmental protection and nature conservation concerns (see SRU 2013a, Item 148). In addition, in eight of Germany's federal states environment and nature conservation are a responsibility of the same ministry as agriculture and forestry. In these cases it is important to find a balance of interests within the ministry.

SRU and WBW see considerable deficits with regard to the integrated approach to nature conservation financing. In its prioritised action framework for achieving goals and implementing priority measures in Natura 2000 areas, the Federal Ministry of the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) points out that nature conservation measures (e.g. establishing nature conservation consultancy services) or on-farm investment grants (e.g. for erecting sheep stalls for landscape conservation) have to date hardly been integrated with classic funding instruments in agriculture (BMUB and BfN 2013). In view of such deficits, the Environment Council of the European Union has called on the Commission to analyse the effectiveness of the integrated approach for biodiversity financing (Council of the European Union 2015).

Nature conservation associations criticise that the environmental administrations responsible in Natura 2000 were often not sufficiently consulted about or integrated in the planning of operational programmes and decision-making about the allocations from the sector-specific funds (NABU 2015). Basically, however, without more appropriately qualified administrative personnel for nature conservation at the federal state level, even the provision of increased funds will not lead to success.

High levels of control

22. There has been a marked increase in the EU requirements for controls (SMUL Saxony 2015; DBV 2017). Frequently, the priority is on the verifiability of a measure and not on it effectiveness. A distinction is made in the CAP between abiotic measures ("light green") and biotic measures ("dark green"). The light-green measures are aimed primarily at protecting water and soil resources rather than the conservation of species and biotopes. Examples include winter green cover, crop diversification, or slurry drag hose methods (OPPERMANN et al. 2016). So-called dark green measures (e.g. introducing field margins, the conversion of arable land to extensive grassland, care for orchards and hedgerows, the reintroduction of old forms of forestry management) can achieve more for the maintenance and promotion of biodiversity. But light-green measures are often easier to monitor than dark green measures.

High administrative burdens

23. The structure of nature conservation funding results in considerable bureaucratic burdens (cf. the critical report of the Saxony State Ministry of the Environment and Agriculture on the reorientation of EAFRD funding, SMUL Saxony 2016). The involvement of various departments or of various administrative sections within departments leads to a considerable level of consultation, and the nature conservation interests do not always come out on top. As a result of the lack of transparency, not all funding possibilities at the EU level are known. In addition, EU funds sometimes

go unused because the regions do not provide the necessary co-financing. Submitting applications already requires detailed knowledge, and not all federal states in Germany have this capability after personnel cutbacks (SRU 2007). In view of the administrative burden involved and in order to avoid possible examinations and repayments, some federal states have already cut back EAFRD nature conservation financing for dark green measures, or abandoned this completely. These measures are in part financed by the federal states themselves as contractual nature conservation (innovative measures e.g. in Schleswig-Holstein, see European Court of Auditors 2017, p. 37). The focus on controllability therefore tends to favour less effective measures. In 2009, only some 7.6 % of second pillar agricultural funding went to agri-environmental and climate measures, and 2.3 % to highly-effective biodiversity measures (OPPERMANN et al. 2016).

Transparency about the use of funds

24. Various courts of auditors criticise that the expenditures for biodiversity and Natura 2000 are not documented sufficiently (European Court of Auditors 2013; Landesrechnungshof Schleswig-Holstein 2016; Saxony Court of Auditors 2015; see also SMUL Sachsen 2015). This lack of transparency is above all due to the fact that the funding for nature conservation comes from many different sources and can be earmarked for different purposes. Also the reporting and monitoring obligations are already excessively time-consuming (SMUL Saxony 2015), so that administrations are unable to cope with the existing burden.

Providing funds for reporting and monitoring requirements

25. Data must be collected for the implementation of the EU nature conservation directives and the associated reporting and monitoring requirements inevitably involve financial burdens. However, the European Commission assumes that additional unnecessary costs are incurred by the inefficient implementation of obligations at national, regional and local levels (European Commission 2016a).

5 Reorganisation of financing after 2020

26. Nature conservation is a task stretching across all the EU Member States. Following Article 8 of the Habitats Directive, action at the EU level is required. The EU must make a significant contribution to financing nature conservation in the Member States. A considerable though declining proportion of the EU budget is currently directed to agricultural subsidies. For years, attempts have been made to make agricultural subsidies more environmentally friendly and to maintain biodiversity in the farming landscape, e.g. with the introduction of greening in the last CAP reform. There are serious doubts about the ecological benefits in particular of greening, especially because the wrong measures are being funded (ENCA 2016; ROBINET 2016; European Commission 2017; HART et al. 2016). For example, few Member States make use of the opportunity to limit the use of pesticides and fertiliser in the ecological focus areas (European Commission 2016b, p. 19). At the same time funds for nature conservation are lacking in other places.

In addition to addressing other weaknesses, such as the implementation of measures and the coordination between state authorities, it is therefore necessary to develop the funding further. A reorganisation should be judged on the basis of a series of criteria, to which the following comments should contribute.

5.1 Basic preconditions

Funding requirements

27. As a first step, an EU-wide assessment of the financial requirements for legal obligations should be carried out, in particular for the implementation of the two EU nature conservation directives and the other priority EU targets for the protection of biodiversity. A central planning instrument, analogous to the prioritised action framework, could be helpful. In the following step, a decision should be reached at the EU-level on what proportion of the overall requirements should be covered by EU-funds and what proportion the Member States should meet from their own resources.

Increased ecological effectiveness

28. Effective nature conservation measures are often small-scale projects and their implementation is dependent on local factors. Complicated control mechanisms make it harder to carry out such measures. In future, control mechanisms should not obstruct dark green measures. Suitable measures should be selected on the basis of criteria that focus on the ecological effectiveness, the adaptation to regional conditions, and the possibilities available to the land users for the implementation.

The quality of nature conservation measures must also be assessed on the basis of what is actually achieved through them. A Europe-wide study shows that under certain circumstances result-oriented payment systems can provide a targeted, easily verified, and cost-effective contribution to biodiversity conservation (ALLEN et al. 2014). Where possible and appropriate, the focus should be placed more on payments that are result-oriented rather than management-oriented (SRU 2000, Item 1217; 2002, Item 205; RUSSI et al. 2016). This is also relevant with regard to the EU Budget Focused on Results initiative (BFOR) started in 2015, which aims to improve the effectiveness of EU budget outlays. In general, result-oriented approaches are less well established in nature conservation, so that no long-term experience has yet been gained. Result-oriented incentive payments are frequently combined with a basic management-oriented remuneration. Establishing a clear link between payments and results for biodiversity can make the “production” of biodiversity an accepted component of farming and forest management.

However, this requires indicators by means of which the results can be assessed transparently on the basis of their costs, and that are sensitive to farming or forest management. They should not be significantly affected by factors that lie outside the sphere of influence of the land users. When developing the programmes it should also be noted that the desired results may only be achieved after some time. This is not an argument against result-based remunerations, but must be taken into consideration when determining the time frame of programmes. Existing approaches should be further evaluated and the insights gained should find their way into the corresponding programmes of other Member States or regional authorities.

Furthermore, the European Commission should include core provisions in the fund regulations that go beyond the EU regulations and that each Member State should take into consideration in their programmes. For example, measures should be accompanied by result monitoring.

Enabling long-term effects

29. Many measures take some time to demonstrate their ecological effectiveness. This applies in particular for ecosystems involving long-term processes. Such measures should be entitled to receive payments beyond the existing funding periods. This would also create planning security for land users and stimulate the demand for such programmes. It would further ensure that the progress made would not be reversed. Making funding commitments that extend beyond the funding period is generally possible by means of contractual provisions, as is shown by a comparison with other fields (housing construction, etc.). This aspect should be taken into consideration when developing measures and drawing up contracts.

The importance of NGOs

30. In Germany, the implementation of nature conservation measures in protected areas is often supported by non-governmental organisations (NGOs), such as landscape conservation associations, biological stations, local activist groups, and Natura 2000 stations. Not least as a result of the close links with the land users, these actors have very good knowledge of the local situation. They take on important tasks in the fields of planning, networking, organisation, communications, management and control. As a rule, they also receive funding from their own federal state. This support should be expanded according to needs. At the local level, the volunteers organised in environmental and nature conservation associations make an important contribution with numerous activities.

5.2 Distribution of agricultural funds according to the principle "Public money for public goods"

31. The CAP is currently the main instrument for financing the biodiversity measures of the EU in the Member States. Against this background, the future of the nature conservation financing must be discussed in connection with the on-going discussion about a reform of the CAP. Both in turn are dependent on the multi-annual financial framework of the EU. In 2017, negotiations begin about the next financial period as from 2021.

Low effectiveness of greening

32. In order to counter the negative impacts of agriculture on nature and the environment, the EU introduced greening in the CAP in 2015. 30 % of first pillar direct payments are linked to environmental services such as grassland preservation, ecological focus areas, and crop diversification. The first pillar of the CAP currently amounts to some EUR 45 billion per annum for the entire EU. In particular, the ecological focus areas should contribute to conserving and improving biodiversity. First estimates suggest that they have no significant added-value for the protection of biodiversity (ENCA 2016; ROBINET 2016; European Commission 2017; 2016b; HART et al. 2016; PE'ER et al. 2014; SRU 2016b, Section 6). The implementation of ecological focus areas in the Member States has in the past mainly involved measures that offer advantages from an operational perspective, but which have few positive effects for biodiversity. Such measures include for example inter-cropping and the cultivation of legumes (HART 2015; PE'ER et al. 2016; Deutscher Bundestag 2016). In 2015, only 26.9 % of the area of ecological focus areas in the EU was devoted to the most beneficial measures for the environment (European Commission 2016b, p. 8). Greening in its present form has therefore contributed little to a relevant increase in ecologically valuable structures, but has frequently led to windfall effects (PE'ER et al. 2016).

Remuneration of public services

33. In previous reports, the SRU has already argued that public money should only be used for the provision, protection and the maintenance of the public goods. In addition to nature conservation and environmental protection, this also includes the provision of richly varied, ecologically valuable cultural landscapes (SRU 2009; 2013b). The SRU drew attention to the societal legitimation problems of the CAP first pillar in 2013 (SRU 2013b), and had also proposed that funds released by a reduction of direct payments should be used to increase funding for the agri-environmental and climate action measures under the second pillar (SRU 2009).

During the current funding period, funding for services of general interest under the CAP could be increased if the Member States transferred 15 % of funds from the first pillar to the second pillar. Were Germany to transfer funds to the full extent (currently 4.5 %, Item 11), then the available funds would be increased from some EUR 1.35 billion annually to some EUR 1.85 billion. This would be a step towards using public money for public goods and already in the short term it could lead to more funds being available for nature conservation.

Added value for land users

34. With increased use of public funds to serve general interests, opportunities would be opened up for land users. The state would indicate to the land users that more importance was being attached to the "product" nature conservation (SRU 2009). In particular in disadvantaged regions, increased remunerations for the public good "nature conservation" would offer a commercially interesting option. The SRU has addressed the question of WTO conformity for support to nature conservation measures in its Statement on a modernised Common Agricultural Policy (SRU 2009, Item 34 f.). In this Statement the SRU argued that "landscape conservation funds" should be made available for the preservation of the cultural landscape in the conviction that this solution could conform with the WTO requirements. The use of public funds for public goods also offers opportunities for diversification, in particular for land users who suffer from volatile revenues (Item 20).

Enforcing administrative regulations

35. Intensively used prime agricultural locations that do not operate to provide public goods must fulfil minimum requirements for environmental protection and nature conservation (SRU 2009). Incentive systems are not necessary here, but rather the effective enforcement of administrative regulations. It is important that the regulations should be clear, ambitious, and enforceable. This is not sufficiently the case at present. In a reformed CAP, the concept of "good agricultural practice" – that is the standards that farmers must comply with without compensation – must be made more precise and more demanding (SRU 2015, Item 409 ff.).

5.3 Possibilities for reforming future EU nature conservation funding after 2020

36. In order to stop the dramatic loss of biodiversity, a more effective and efficient form of EU nature conservation funding is necessary (KETTUNEN et al. 2017). In the opinion of SRU and WBW, retaining the current system without changes can in no way be recommended, since it would lead to a further erosion of the basis of human livelihoods.

SRU and WBW see two possibilities. One would be the creation of an independent EU funding instrument for nature conservation (see Section 5.3.1). This is demanded by various politicians, association representatives, and academics (PECHAN 2016; BMUB 2015b; EWSA 2016; BBN 2016; DBV 2015; KATI et al. 2015). The other option would be to develop the existing integrated approach and to increase the support for nature conservation concerns under the second pillar of the CAP (European Parliament 2016; see Section 5.3.2).

5.3.1 An independent EU nature conservation fund

37. SRU and WBW favour the creation of an EU nature conservation fund after 2020. The advantages are clear. The nature conservation goals would no longer be competing with other political priorities and could therefore be better asserted. Targeting the fund on nature conservation concerns would most probably be more effective for biodiversity. In addition, it would also be easier to see how the funds are used, because they would not be coming from a number of different EU sources. Various arguments have been advanced against a nature conservation fund. The restructuring when setting up a new nature conservation fund could involve a considerable administrative burden – at least for a limited period. However, it can be assumed that this would decrease in time, because the need for high levels of consultation between the various departments or between various administrative sections within departments would then no longer be necessary (Item 23). A further objection is that a nature conservation fund might not immediately find favour with land users, whereas strengthening the second pillar would directly increase the acceptability. But the undisputed goal of policy integration should not be used as an argument against an independent nature conservation fund. The aim of including environmental concerns in accordance with Article 11 TFEU is to integrate the requirements of environmental protection when formulating and implementing Union policies and measures. This remains possible and necessary within the framework of the CAP, for example with cross-compliance. But it should not be concluded from this that an independent funding instrument is either undesirable or impermissible.

With an independent nature conservation fund it would be possible to concentrate on nature conservation concerns without these coming into conflict with the financing of other European goals from the same programme (cf. NOTARO 2016; KETTUNEN et al. 2017). Bringing concerns together in one instrument would strengthen nature conservation as a whole, in particular in the perception of policy-makers and the general public.

Against this background, in its Nature Conservation Offensive 2020 on the implementation of the biodiversity strategy the German Federal Environment Ministry spoke out in favour of transferring at least a third of the funds from the first pillar of CAP into a EU nature conservation fund (BMUB 2015b). This corresponds to the current payment for greening and by targeting nature conservation goals would have better prospects of achieving positive effects for biodiversity protection (ibid). The proposals of the German environmental associations for the financing of a nature conservation fund are in the same range (EUR 12-15 billion p.a. for a funding quota of at least 75 %; NABU 2015; BBN 2016).

The new nature conservation fund should also create financial incentives for land users, in order to make nature conservation more attractive as an alternative

field of business in the future. An incentive component would be made easier by the creation of a dedicated fund in terms of WTO regulations (Item 34). This also applies in the case of support for nature conservation measures in forests, which have previously played a secondary role. Consultancy and supervision services in this sector should be increased. The mediation between land users and nature conservation can often improve the outcome of contractual nature conservation measures. The funding should go together with monitoring of the success of the measures. This requires targeted indicators.

Clear prioritisation of funding targets

38. If a new nature conservation funding instrument is to be adequately financed, it is important to specify which concerns this instrument should address. Measures which pursue other targets should only be funded if they have relevant effects for nature conservation. The same also applies for water conservation and climate measures, which often have synergies with nature conservation (e.g. measures to implement the Water Framework Directive 2000/60/EC and the Marine Strategy Framework Directive 2008/56/EC). In view of the considerable challenges involved in the transposition of these directives, and the similarity of the financing requirements, thought should be given to ways to improve the financing of water conservation in the medium-term.

It is also necessary to clarify the financing of the Trans-European Network for Green Infrastructure (TEN-G) which is being discussed at the EU level. Green infrastructure covers a broad spectrum of natural and artificial green elements such as nature conservation areas, farm or forest areas with a high natural value, avenues, riverine trees and bushes, hedges, fish passes, but also urban elements such as road-side trees or allotments. Natura 2000 areas are a key component of the network (Trinomics 2016). Embedding Natura 2000 in TEN-G would offer the chance to strengthen the cross-linking between biotopes and would thus contribute to their development. In view of the relevance of TEN-G for nature conservation and because of the important contribution of protected areas for wildlife corridors, it would seem appropriate to finance such a network biotope through an EU nature conservation fund. However this would have to be taken into consideration when making the financial provisions for the fund.

Programme responsibility

39. An EU nature conservation fund would be anchored in a multi-level system, i.e. it would have to be administered jointly by the EU, the Member States, and in Germany also by the federal states. In the opinion of SRU and WBW it is important that the responsibility at all levels should lie with the environmental and nature conservation authorities. In particular, the programme formulation should be their responsibility. But in order to carry out the new tasks, the nature conservation administration of the federal states would have to be allocated more human resources.

Even with a dedicated fund for nature conservation, attention would have to be given to policy coherence. The land users will therefore still have to integrate nature conservation concerns in the management of their land. They will also remain the major recipients of the funds. However, a nature conservation fund as envisaged by SRU and WBW would provide more support than in the past for those users who made public goods available (see Section 5.2). In addition, the LIFE programme for funding individual innovative projects should be retained (Item 14).

5.3.2 Alternative: Strengthening the EAFRD

40. In the course of the discussion of the EU financial framework after 2020, the possibility is raised of the further development of the existing integration approach for the funding of nature conservation measures. If it is not possible to establish an independent nature conservation fund in the short or medium-term, then the EAFRD must be developed into a fund for rural areas and nature conservation. This should bring together all nature conservation measures. The quantitatively and qualitatively improved EU nature conservation funding should be financed by a redistribution of money from the first pillar of the CAP. In view of the complex constellation of responsibilities, administrative authority should be placed with the farming, forestry, and nature conservation authorities which are closest to the subject matter. The basic preconditions stated in Section 5.1 must be included in such a second pillar. In the revised EAFRD, a minimum budget share should be determined for nature conservation at the EU level which is sufficient for the implementation of the EU nature conservation directives and further priority targets for European nature conservation. The EAFRD regulation should also include binding goals and specific indicators for biodiversity protection. In the opinion of SRU und WBW, a revised integrated financing of nature conservation would generally have to be controlled by the environmental and nature conservation administration in consultation with the farming and forestry administrations at all levels. For example, programme sections that are classed as nature conservation would be the responsibility of the nature conservation administration (NABU 2015).

6 Recommendations

41. SRU and WBW find that a new, independent EU nature conservation fund in which all funding measures related to nature conservation were brought together would in principle be advantageous. In view of the increased pressure to take action to protect biodiversity, nature conservation financing should be taken out of the system of agriculture funding and strengthened by having an instrument of its own. It would then be possible support nature conservation concerns specifically, without having to compete for funds with other European objectives.

If, for political reasons, it is not possible to establish an independent nature conservation fund in the short or

medium-term, then as an alternative, nature conservation should be strengthened by the further development of the CAP second pillar after 2020. In the revised EAFRD, a minimum budget share should be determined for nature conservation at the EU level which is sufficient for the implementation of the EU nature conservation directives and further priority targets for European nature conservation. The EAFRD regulation would then also have to include binding goals and specific indicators for biodiversity protection. In the opinion of SRU und WBW a revised integrated financing of nature conservation should be controlled by the environmental and nature conservation administration in consultation with the farming and forestry administrations at all levels.

42. If an independent nature conservation fund is created, then at the European level the funding targets should be clearly separated from those of the CAP (in particular the EAFRD) and other instruments such as ERDF and LIFE. This clear allocation of funding targets is also important in order ensure that sufficient budgetary provisions are made. Conceptionally, the European Commission and the Member States must ensure that the nature conservation requirements are fulfilled. The links between a nature conservation fund and water conservation must also be clarified. In view of the considerable challenges involved in the transposition of the Water Framework Directive and the Marine Strategy Framework Directive, and the similarity of the financing requirements, thoughts should be given to ways to improve the financing of water conservation in the medium-term.

The bureaucratic hurdles for land users should not be so demanding that the programmes find no acceptance. An essential point is the provision of sufficient human resources at all levels – from the European Commission through to the federal state administrations.

The following recommendations for the formation of a EU nature conservation fund should be considered.

The allocation of public funds should be aligned more to nature conservation requirements

43. Funding of biotic (dark-green) measures should be increased. Overall, the suitability of measures for funding should be judged more on the ecological effectiveness than on whether the process can be monitored conveniently. Against this background, the existing approaches for result-oriented remuneration should be evaluated and the federal states should use the insights gained when formulating or revising corresponding programmes (Item 28). The remuneration of public services should depend on the nature and the extent of the services rather than on who is providing them.

Creating incentives for land users

44. An independent fund should be used to make nature conservation more attractive as an alternative field of business for land users in the future. The European Commission should therefore introduce an incentive component that extends beyond mere "compensation for lost earnings". The creation of a nature conservation fund would make this possible in terms of WTO regulations, if the proposals of SRU (2009) were followed (Item 34).

Determining the share of the EU funds to the overall requirements

45. At the European level, it should be politically determined which proportion of the overall requirements for nature conservation financing should be met from EU funds and how much should be covered by the Member States. As far as possible, the personnel costs, the monitoring and the purchase of land should be co-financed through the EU.

Improving the data basis

46. The current balancing of funds needed to achieve the European nature conservation targets should be improved, simplified and where possible the data should be completed. This applies at the European, national and regional levels. A bottom-up approach is desirable that registers the requirements and the available funds at the various levels for each Member State as accurately as possible. Previously, however, the tendency has been to adopt a top-down approach. For Germany, the estimates of the LANA could form an important starting point for such accounting.

Supporting nature conservation measures by non-governmental agencies

47. The implementation of measures in protected areas is frequently supported by NGOs such as landscape conservation associations, biological stations, local actions, or Natura 2000 stations. These actors have very good knowledge of the local situation and they take on important duties, such as caring for the areas. In addition, nature conservation measures are often more successful when land users and NGOs cooperate well with each other. In particular the federal states should therefore use nature conservation funds in order to develop this support according to their needs. In addition, the voluntary work of environmental and nature conservation societies should be supported.

Re-allocating funds from the first to the second pillar in the current period

48. Independently from the funding of nature conservation post-2020, the German federal government should make full use of the scope offered by the CAP and for 2019 and 2020 should transfer 15 % of the funds from the first to the second pillar (SRU 2013b). Strengthening the EAFRD would be a step towards using public moneys for public goods. This way, already in the short term more funds could be made available for nature conservation.

SRU and WBW encourage the German federal government to further pursue its pioneering role in the EU and

to urge the European Commission and the other Member States to support an independent nature conservation funding instrument. Also the German federal government should continue the dialogue about this with the German federal states and with societal groups at national and European levels.

7 Literature

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