Modern Environmental Science and Engineering (ISSN 2333-2581)
July 2015, Volume 1, No. 2, pp. 89-93
Doi: 10.15341/mese(2333-2581)/02.01.2015/005
Academic Star Publishing Company, 2015
www.academicstar.us

Land Management by the Federal Building Code Intervention Compensation: Impact Regulation

Antje Wunderlich

Department of Landscape Architecture and Geomatics Engineering, Course of Studies Nature Conservation and Land Use Planning, University of Applied Sciences Neubrandenburg, 17033 Neubrandenburg, Germany

Abstract: The goal of my research is to investigate the practice of urban intervention regulation as to whether a market-based control of the sites of construction areas and construction areas away from natural areas, to brownfields is possible. One possibility use Ecosystem services is, to establish the value of nature, another possibility is to use Ecosystem services as the basis for calculating the impact regulation taking into account the problem of contaminated sites. The main argument is the use of a real value of nature to assess the intervention as well as the compensation review.

Key words: impact regulation, brownfield regeneration, town planning, ecosystem services, land management

1. Introduction

How could the optimization of town planning, building regulations and impact regulation reduce the land use and support brownfield revitalization?

Nature conservation is currently at an impasse. He is both against the redefinition of space and against land recycling. Currently also abandoned land uses, brownfield sites are valuable for nature conservation and therefore he does not want this land be returned to the real estate cycle. In this way the conservation would actually only slow down. He always slows construction process — the construction process to new areas and as well as the construction process in claim areas whose use was abandoned. Nature conservation is therefore located in an impasse. He is clean in a contraposition, in an opposition [1]. If the nature conservation wants to make, then he has to start at the point where meaningful decisions are made and are location decisions.

But as I've just come to the instrument of urban intervention scheme?

Corresponding author: Antje Wunderlich, Dipl.-Ing. M.Sc., research areas/interests: interaction between environmental science and urban planning. E-mail: plan2@web.de.

The impact regulation is the most logical instrument for the responsibility of engaging in the natural perpetrator and apportioning the costs for the possible redevelopment, which is required under the current EU law anyway.

The polluter pays principle is the basic principle is to be traversed by the nature conservation in the future. Previously, it was so that interventions have resulted in the nature of social costs. This principle is reversed at present to, and the impact regulation is as it were a pioneering instrument, what the nature has invented in the 70s, which, however, perfectly suited to enhance and apply as the basis for the implementation of the polluter pays principle to other elements of planning law. In this respect I would like to pick up an instrument, what is there already and do not add new things. I would like to extend only the application.

2. Chain of Reasoning

2.1 The Impact Regulation

A principle of the impact regulation is the cascade of decision avoidance of engagement, if not feasible compensation and replacement, and if that is not

possible, payment of a replacement fee. In the sense of nature conservation should work on the **prevention** and **avoidance can be influenced at the point where it comes to location decisions**. Thus, the environmental group would slip out of his Despite heading out to the first place of the decision cascade. If for this purpose the spare money is a good way then the spare money should not be in the decision cascade have to be last, but slipping up between prevention and compensation or reparation. Because only the payment of compensation money can be made unavoidable intervention of compensation to a place where he has influence on location decisions. The compensation money is no longer a selling indulgences, but it serves to compensate. It is functionalized for compensatory measures that cannot be financed otherwise.

2.2 The Real Value of Nature

In order to determine the real amount of spare money, different approaches are being researched. One approach is the difference between the Value of nature before the intervention as compared to the value of the nature **after** the compensation procedure. Parallel course, the appreciation must be evaluated analogously. That is, what is paid by the spare money, an appreciation for nature must represent. Again, it is again necessary to determine the value of nature **before** the upgrade and to determine the value of nature **after** the revaluation. From the difference in the appreciation calculated. Now it is necessary to set the devaluation of nature by engaging with the appreciation of nature by upgrading measures in a meaningful relationship.

So far, recovery costs for the upgrading required, but the evaluation of the intervention, the difference of the value of nature is determined by habitat value key, which find their application also in the process of nature conservation impact regulation. These are specified in abstract form as points or surface equivalents. Here, a conversion of points, also called eco-points, paid in cash. These can be based either on restoration costs, or one evaluates the nature monetarily on ecosystem (service) services or to assess the nature of the real value of their sheer existence. But this is not yet possible. Since nature a public good and therefore is not for sale, they are not traded on markets. The market is, however, in any economic system the basis of pricing.

The value of nature is alternatively determined by other economic evaluation methods: production costs, damage costs, abatement costs, alternative and restoration costs, house price method, travel cost and willingness to pay analyzes [2]. However, this is very difficult, since in principle the evaluation is always followed by a social discourse on values. And that a) is variable, b) may vary in different areas. Ultimately, each country has its own norms and values. And even within a country can define your own values for themselves every man. In this respect we find ourselves at the whole issue of the ecosystem services in a societal discourse on values. This is the result of the first interviews I've done on this topic. Nevertheless, the ecosystem services can be an inspiration to the creation of the dimension of the amount of the value of nature, because all previously determined values, no matter which way they were determined to show that the value of nature so far, even for the people in the social system in which already exists, the impact regulation (in Germany) is much higher than what previously obtained to spare money is paid, is called for. This leads to the conclusion that the company is in its sense of values already much further, as the representatives of nature conservation, the spare money called a token payment and fear a sell-off in nature, think.

2.3 A New Way to Use the Money for the Impact to Steer Location Decisions

The compensation money is not yet required in the location decision relevant amount, as the policy is concerned that characterized the construction process and the economic development is held back. If you no longer understands the spare money as a mere alibi

payment, as additional, but as a **condition for land management** and leads back into the circuit to which it belongs, towards the appreciation of brownfields and to the control of location decisions, then it is accepted by nature. If remediation, demolition and desealing be carried out by the money spare money from the economy and politics is acceptable because the money does not disappear but directly leads to new jobs and thus remains in the economic cycle. The acceptance but this will change with the meaning and use of the spare money.

The barriers must be eliminated. The barriers are to be found even in complicated ownership structures, on the other uncertainties in terms of the location, thirdly, in a complex planning process, which also may even make possible way surface purchases and apportionments, expropriations necessary and an essential part in additional costs.

Prof. Harald Burmeier, an engineer and Professor for brownfield regeneration and the head of ITVA, has explained to me how the value of an area is created. There are relevant to the market prices that can be achieved, and contrast remediation costs. If the potential to be determined price, the market value of an area after the renovation, is lower than the costs of remediation is this area not returned to the real estate cycle. Example: The area is worth € 100/m² after the renovation, but you would have to invest € 120/m² of clean-up costs, there is a difference of 20 € as **a loss**. This difference is not the barrier that exists so far, namely particularly **in structurally weak regions**.

By contaminated sites, demolition and desealing fall at very high cost, which represents a major obstacle to brownfield revitalization and land management brakes. If you would like to start at the point, if you want to influence **location decisions** especially in structurally weak regions to the effect that not infinitely more surface are sealed in and claim on the green meadow, then you have to offset the negative amount of financial support. Engineers and the experts that deal with environmental remediation and recycling already unutilized land in the real estate cycle, example CircUse, Refina and many other research projects, come to the conclusion that **building on green field must be expensive** and for **building cheaper on brownfields**. At this point I see the potential for using the spare money.

However, this requires awareness of an appreciation by remediation measures, which as mentioned earlier is initially given by the conservation not (or not always).

- The reorganization measure must be recognized as revaluation measure for conservation;
- Be given more consideration in the evaluation demolition and desealing as further appreciation of the need;
- Even with a return of the rehabilitated area in the real estate cycle, compensatory measures must be recognized as such.

Example: A previously sealed to 90% area preindustrial discontinued use of soil contamination is cleaned and afterwards transferred to a residential use with 40% seal, then the contaminants are removed from the soil, which is a direct appreciation of soil and ground water quality, and demolition — and desealing were performed, which represents an increase in the quality of the landscape and turn the soil and water quality and thus a basis as a habitat for plants and animals.

Improvement exists even if the surface formerly industrial or commercial application afterwards as residential use has a garden. Since unsealed area within unused plots have a high ecological value or can have. Determinations to be possible in the development plan. By the occupancy index, the plot ratio to specifications to roof and wall greening to planting commandments must be ensured, and that is so far also possible that there really is an appreciation. For we must note that we are here at the level of urban land, so it comes to the Federal Building Code or urban intervention scheme. And in this context only guidelines can be made. But the project is put into practice then by concrete builders and investors.

3. Other Instruments

Other instruments have been no positive impact on less land use as required and as enshrined in the 30-hectare target, so how political consensus at EU and national level. See, for example, Volume 2 of Research Series surface in a circle or the investigations which were carried out in advance of the research on the area certificates, commissioned by the Federal Environment Agency. I can here refer to the analyzes already carried out and not have to re-compare all existing instruments.

Why I research on the subject parallel to the research area trade certificates?

The emissions trading requires a resealing. Especially the rights to seal new surfaces are the basis of trade area certificates. Since current research results assume that in the FRG about 120.000 ha brownfields are available that can be recycled into a real circuit [3], which in depending on the amount of the amount of development sufficient future for at least five years building another in conventional fashion, it is just not necessary to seal new area. That corresponds with the EU's requirements and objectives, which the FRG has joined.

4. Activities at European Level

The strategy of the ground saving, economic development and promoting both city construction and reorganization measures, fits exactly into the current trends of the international and European environmental policy. Here are some examples:

Already 2011 has made the land use goal net zero for the year 2050, the European Commission under its Roadmap to a Resource Efficient Europe [4]. The Federal Council has welcomed the stated objective and a much faster implementation (for 2025-2030) called for (Brat-Ds 590/11). Furthermore, the Directorate General Environment of the European Commission in May 2012 published guidelines for soil sealing (SWD, 2012, p. 101). Through floor sealers go every year approximately 1,000 square kilometers of fertile land lost. The guidelines are part of the Thematic Strategy on soil protection and should help to meet the objectives of the Roadmap to a Resource Efficient Europe (COM (2011) 232) in the area of land use [5].

By 2020, the federal government wants to reduce the area consumption to a maximum of 30 acres per day. This so-called “thirty-ha-target” it has set in their national sustainable development strategy in 2002. The National Strategy on Biological Diversity of 2007 specifies this requirement: It formulates visions and renames fields of action for federal, state and local governments. The European Commission is seeking even to the land use goal net zero [6].

Planning law has so far focused on growth. It lacks instruments to deal with the consequences of shrinkage. Wolf, Reiner says in “Planning on time” (2006) [7]: “This deficit is also contrary to the principle of development planning, sustainable urban planning development to ensure (§1 Abs. 5 S. 1 BauGB). Sustainability aims at a socially just and environmentally sustainable use of natural resources in intra-and intergenerational perspective. Soil is not augmentable resource. Sustainable urban development therefore requires first and foremost curb the consumption of land. If after §1a Abs. 1 S. 1 BauGB should be handled carefully and sparingly to such equipment, this cannot last done by a legal underpinning the life cycles of land and buildings, and legally enforceable guarantees for their re-usability. This applies even more if you follow the recommendations of the Advisory Council, which in the long term should take place no more use of new land.” [8]

References

[1] Joachim Sanden, Bodenschutz im Spannungsfeld von Umwelt- und Naturschutz: Flächenrecycling und Naturschutzrecht, Altlastensymposium 2014.

[2] Der Wert der Natur für Wirtschaft und Gesellschaft, TEEB 2012.

[3] Umsetzung von Maßnahmen zur Reduzierung der Flächeninanspruchnahme – Innenentwicklungspotentiale, BBSR 2011.

[4] Roadmap für ein ressourcenschonendes Europa [COM(2011) 571 final], Europäische Kommission 2011.

[5] Available online at: http://www.labo-deutschland.de/documents/1_Anlage_LABO_Reduzierung_der_Flaechen inanspruchnahme_f11.PDF, accessed 01.09.2014.

[6] Available online at: http://www.bmub.bund.de/themen/strategien-bilanzen-gesetze/nachhaltige-entwicklung/strategie-und-umsetzung/reduzierung-des-flaechenverbrauchs, accessed 01.09.2014.

[7] Reiner Wolf, "Planung auf Zeit" – eine Chance für die Stadtentwicklung?, in: *Kreislauf der Flächennutzung – vom Flächenrecycling zum Flächenmanagement*, CIF Freiberg 2006.

[8] Advisory Council on the Environment, *Environmental Reports 2000th Steps into the Next Millennium*, 2000.