



KZR INiG System/5



Land use for raw materials production – biodiversity

by The Oil and Gas Institute

The KZR INiG System/5

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1. Introduction.

The document contains the KZR INiG System's requirements related to conservation of biodiversity. These requirements provide guidelines on the sustainable way to produce, process, transport and use biofuel and bioliquids raw materials and feedstocks.

According to the KZR INiG System, biofuels and bioliquids shall not be produced from raw materials cultivated and harvested from land with high biodiversity values. According to Directive 2009/28/EC (RED) this land is namely land that had one of the following statuses in or after 1st January 2008, whether or not the land continues to have that status:

- a) primary forests and other primary wooded lands;
- b) areas designated for specific nature protection purposes;
- c) highly biodiverse grasslands;

In the case of highly biodiverse grassland, the Commission is going to establish the criteria and geographic ranges to determine which grassland can be considered to be a highly biodiverse grassland.

For nature protection areas an exception is possible, as discussed in section 4.2.

All these requirements included in this document are valid for agricultural producers participating in the KZR INiG System. Agricultural producers that receive direct payments pursuant to Regulation (EC) no. 73/2009 are obliged to meet Cross-Compliance requirements and therefore they must fulfill agricultural and environmental requirements and standards such as soil and water protection, Habitat and Birds Directives, good agricultural practice and management etc. (for more information see System KZR INiG/6/ *Land for raw materials production – agricultural and environmental requirements and standards*). Whether the farmers are covered by the direct support scheme or not, they are obliged to provide proofs on compliance with the sustainability criteria related to conservation of biodiversity. If there are farmers within the EU who supply raw materials for biofuels or bioliquids production but are not covered by this EU control system, all KZR INiG System requirements need to be controlled.

2. Normative References:

All relevant KZR INiG System documents are valid for the scope of application. The normative references display the documents which contents are linked and have to be considered as common points.

KZR INiG System /1/ Description of INiG System of Sustainability Criteria – general rules

KZR INiG System /2/ Definitions

KZR INiG System /3/ Reference with national legislation

KZR INiG System /4/ Land use for raw materials production – lands with high carbon stock

KZR INiG System /6/ Land for raw materials production – agricultural and environmental requirements and standards

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KZR INiG System /7/ Guidance for proper functioning of mass balance system

KZR INiG System /10/ Guidelines for auditor and conduct of audit

The scope of the abovementioned KZR INiG System's documents is based on the following documents:

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

EN 16214-3 *Sustainably produced biomass for energy applications – Principles, criteria, indicators and verifies for biofuels and bioliquids – Part 3: Biodiversity and environmental aspects.*

3. Definitions

System KZR INiG /2/ Definitions

4. Description and requirements

The sustainability criteria introduced by the Directive 2009/28/EC (RED) contain an exclusion of primary areas and other areas designated for nature protection, and highly biodiverse grasslands from the cultivation of raw materials for biofuels and bioliquids production. For some of these criteria, RED allows for exceptions, on the condition of providing certain evidences and meeting relevant requirements. These areas include pastures, protected areas requiring human intervention, provided that simultaneously nature protection goals of the area are preserved.

A reference date, i.e. 1st January 2008, is connected with defined "land statuses" (*KZR INiG System/2/Definitions*). The date is a reference point for proving that a change in land use has occurred or has not occurred, in consequence of which a change in "land status" defined according to RED has occurred or has not occurred. „Land-use change" should be understood as changes occurring in reference to the status of the area surface. For example, a change of pasture to cropland is a change in land use, as opposed to a transition from cultivation of one plant (such as corn) to another one (such as rape).

Croplands include also fallow lands (fallow land is land that has been left fallow for up to 5 years only). A change of management activities, tillage practice or manure input practice is not considered land-use change.

4.1 Primary forests and other primary wooded lands

Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value, namely land that had primary forests and other primary wooded lands statuses in or after 1st January 2008, whether or not the land continues to have the status primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed.

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Agriculture producers shall prove that the land, from which the raw materials for biofuels or bioliquids production have been obtained, does not have the status of primary forests and other wooded lands (e.g. natural forests). An example of acceptable evidence has been shown in section 6.1.1. For example an excerpt from the land register (containing information about land use purpose) or aerial photograph of the land showing it to be planted with defined raw materials. To prove that the land was not a primary forest after 1st January 2008 the date of the excerpt from the land register (containing information about land purpose) need to relate back to this date.

4.2. Areas designated for nature protection

Biofuels and bioliquids shall not be made from raw materials obtained from land that was a protected area in or after 1st January 2008, whether or not the land continues to have the status of the areas designated:

- by law or by the relevant competent authority for nature protection purposes; or
- for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second subparagraph of Article 18(4) of the RED;

unless evidence is provided that the production of that raw materials did not interfere with those nature protection purposes.

In Poland all areas designated for nature protection purposes are protected parts of nature and landscape based on nature and environmental conservation acts that implement EU's provision concerning the nature and environment conservation (see System KZR INiG/3/ *Reference with national legislation* and System KZR INiG/6/ *Land use for raw materials production – agricultural and environmental requirements and standards*).

According to national law the list of protected areas includes:

- national parks,
- nature reserves,
- landscape parks, as well as protected landscape areas,
- Natura 2000 areas,
- natural monuments,
- documentation sites,
- ecological grounds,
- nature-landscape complexes and protection of plant, animal and fungi species, according to the Law on Conservation of Nature (Official Journal 2004, No 92, item 880 with amendments).

It is allowed to cultivate the raw materials on lands that are designated for nature protection as long as the evidence is provided that the production of raw materials did not interfere with the nature protection purpose in question. An example of acceptable evidence has been showed in section 6.1.2.

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Areas for the conservation of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organizations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second paragraph of Article 18 (4) of the RED

It is allowed to cultivate raw materials on these lands if evidence is provided that the production of raw materials did not interfere with the nature protection purpose.

The KZR INiG System will communicate to economic operators any details of lists on protected areas as soon as they are available from the EC. The standard documentation will be updated accordingly. For example it is important in case of protected areas included in categories V-VI (Table 1) of International Union for Conservation of Nature, where managing of natural resources is consistent with the sustainability criteria.

Table 1 – List of protected areas according to International Union for Conservation of Nature

Category	Protection form
Ia	Strict nature reserve; mostly for scientific purposes
Ib	Natural area;
II	National park; mostly for protection of biotic nature and recreation
III	Natural monument; for protection of individual features of nature
IV	Habitat/species protection area
V	Protected landscape/sea area
VI	Protected area with usable resources; for sustainable utilization of natural ecosystems

4.3 Highly Biodiverse Grasslands

Biofuels and bioliquids shall not be made from raw materials obtained from land that was highly biodiverse grassland in or after 1st January 2008, whether or not the land continues to have the status of highly biodiverse grassland is defined in document System KZR_INiG/2/Definitions.

~~Natural highly biodiverse grassland is characterized by the absence of human intervention and which maintains the natural species composition and ecological characteristics as well as processes. Raw materials shall not be harvested from areas declared as natural highly biodiverse grassland on 1st January 2008 or thereafter.~~

~~Non-natural grassland is characterized by the absence of human intervention and is species-rich and not degraded. The conversion of areas declared as non-natural grassland to crop land is prohibited if the period of absence of human activity is longer than 5 years.~~

~~Until definitions, criteria and geographic areas featuring grassland with high biodiversity are determined by the Commission,~~

Any conversion of grassland in or after 1st January 2008 is prohibited within the KZR INiG System

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Grassland means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least 5 years continuously. It includes, meadows or pasture that is cropped for hay, but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Article 17(4)(b) of Directive 2009/28/EC, unless these are agroforestry systems which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of trees; ^v

Natural highly biodiverse grassland means grassland that:

- (a) would remain grassland in the absence of human intervention; and
- (b) maintains the natural species composition and ecological characteristics and processes; ^v

Non-natural highly biodiverse grassland means grassland that:

- (a) would cease to be grassland in the absence of human intervention; and
- (b) is not degraded, that is to say it is not characterised by long-term loss of biodiversity due to overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
- (c) is species-rich, that is to say it is:

- a habitat of significant importance to critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species, or other lists with a similar purpose for species or habitats laid down in national legislation, or recognised by a competent national authority in the country of origin of the raw material; or

- a habitat of significant importance to endemic or restricted-range species; or

- a habitat of significant importance to intra-species genetic diversity; or

- a habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or

- a regionally or nationally significant or highly threatened or unique ecosystem. ^v

Human intervention means managed grazing, mowing, cutting, harvesting or burning; ^v

5. Calculation method

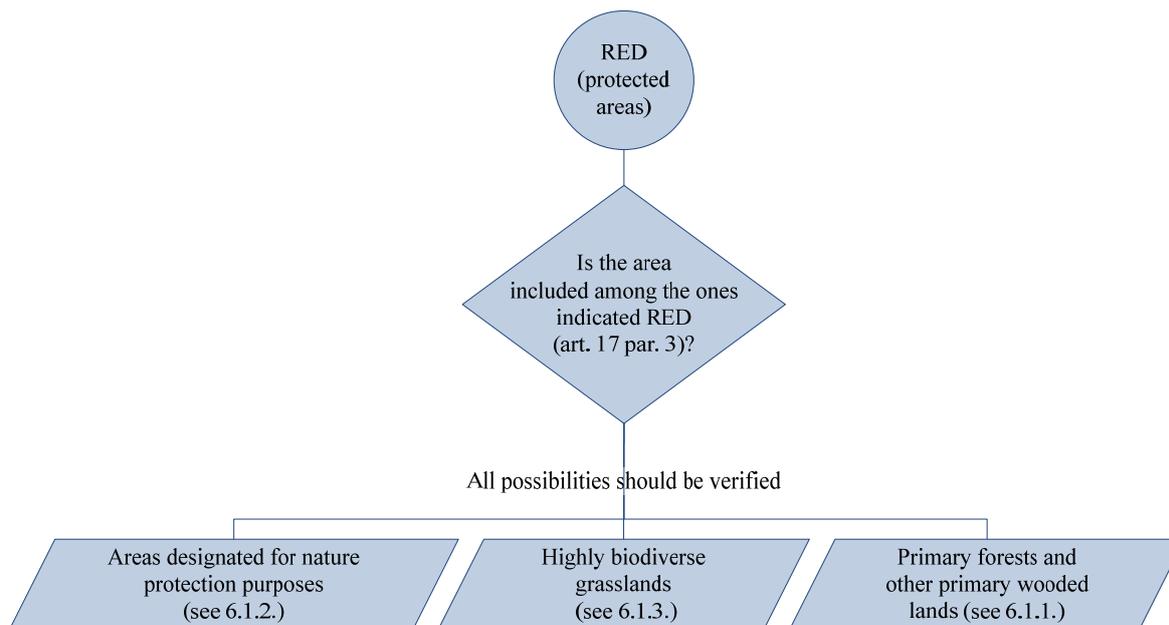
Not applicable.

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6. Conformity check

In order to prove conformity with requirements of article 17 (3), one should proceed according to the following diagram (Figure 1).

Figure 1 – Exemplary procedure in the scope of check of requirements of art. 17 par. 3 of Directive No. 2009/28/UE



6.1. Criteria

6.1.1 Primary forests and other primary wooded lands

It is anticipated that three scenarios will prevail, according to an initial analysis of results and fulfillment of the sustainability criteria for primary forests and other primary wooded lands.

Scenario 1 – the farm was created on an area with the current status of cropland, but in or after 1st January 2008 it was converted from land of another status;
In this case, the participant must prove that in/after 1st January 2008, the area did not have a primary forest status.

Scenario 2 – the farm was created before 1st January 2008;
It is proved in a credible way that in 1st January 2008 the area did have the status of cropland, therefore the requirement concerning primary forests will be met.

Scenario 3 – new farm created on an area not having the status of cropland currently.
In this case, the participant may want to gain information about the area located on its farm's geographic boundaries, in order to check whether the area was a primary forest in or after 1st January 2008.

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Because the RED does not provide the exception for these areas, the participants must prove that the area has not had or currently does not have the status of primary forests or other primary wooded lands.

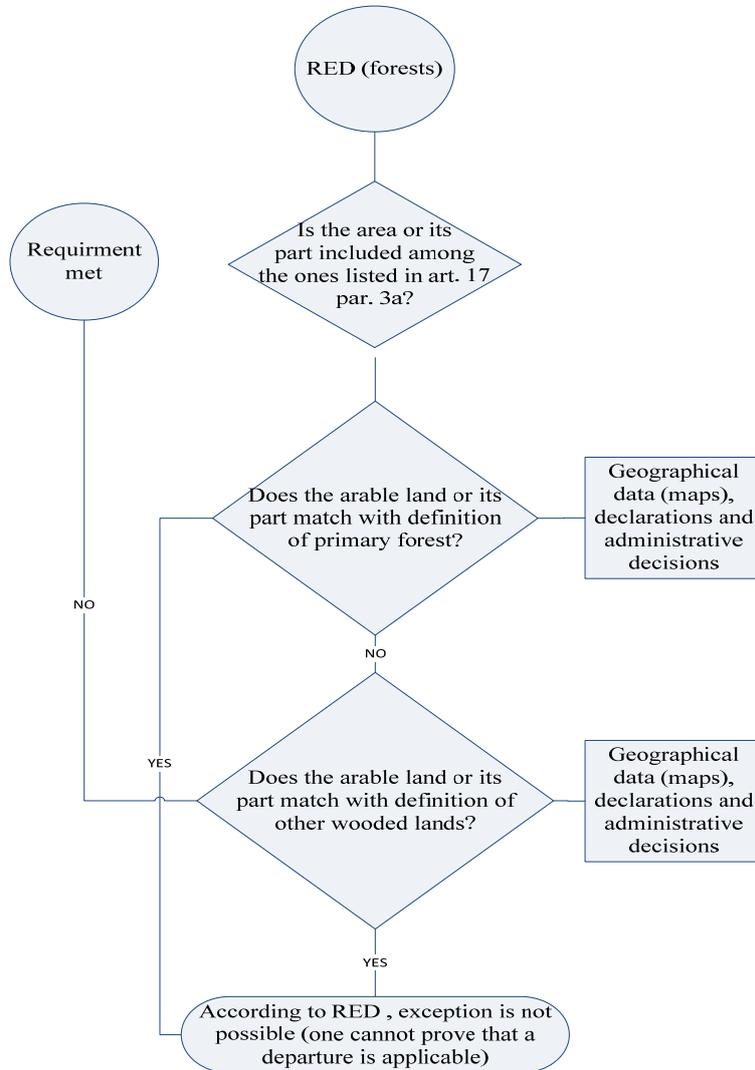
For example, compliance with the criterion on ‘primary forest’ could be shown by:

- an aerial photograph of the land, showing it to be planted with the defined raw materials (positive), or
- a map of all the primary forests in the region, showing the land to fall outside them (negative).

The criteria refer to the status of the land in 1st January 2008. The use of earlier evidence is not ruled out. For example, if it is shown that the land was cropland a little earlier than 2008, e.g. in 2005, this may be enough to show compliance with some or all of the land-related criteria.

Figure 2 shows a diagram of evaluation for primary forests and other primary wooded lands.

Figure 2 – Evaluation diagram for primary forests and other primary wooded lands



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6.1.2 Areas designated for nature protection purposes

The verification process of the impact of raw materials production starts from the identification of the nature protection purpose (purposes), including criteria and indicators relevant for this purpose (or purposes).

Biodiversity criteria

In the case when an ecosystem together with its species is designated for nature protection purposes, the biodiversity criteria and indicators should be taken into consideration.

The check whether the integrity of relevant ecosystem and habitat of rare, threatened and endangered species in this area has been maintained, is one of the criteria that should be examined. Other examples of the biodiversity criteria is the lack of activities taking place during critical seasons for ecosystem (e.g. during the breeding season), established respective management plans for the specific area that indicate existence of ecological corridors, species habitat or critical components of indicator species and maintained protection of certain species population. Moreover, the harvest and removal of invasive species or use and control of genetically modified organism (GMO) is allowed until it is in conflict with the nature protection purposes. Additionally, the land-use change (e.g. afforestation, deforestation etc.) should be evaluated whether it violates nature purposes.

Environmental criteria

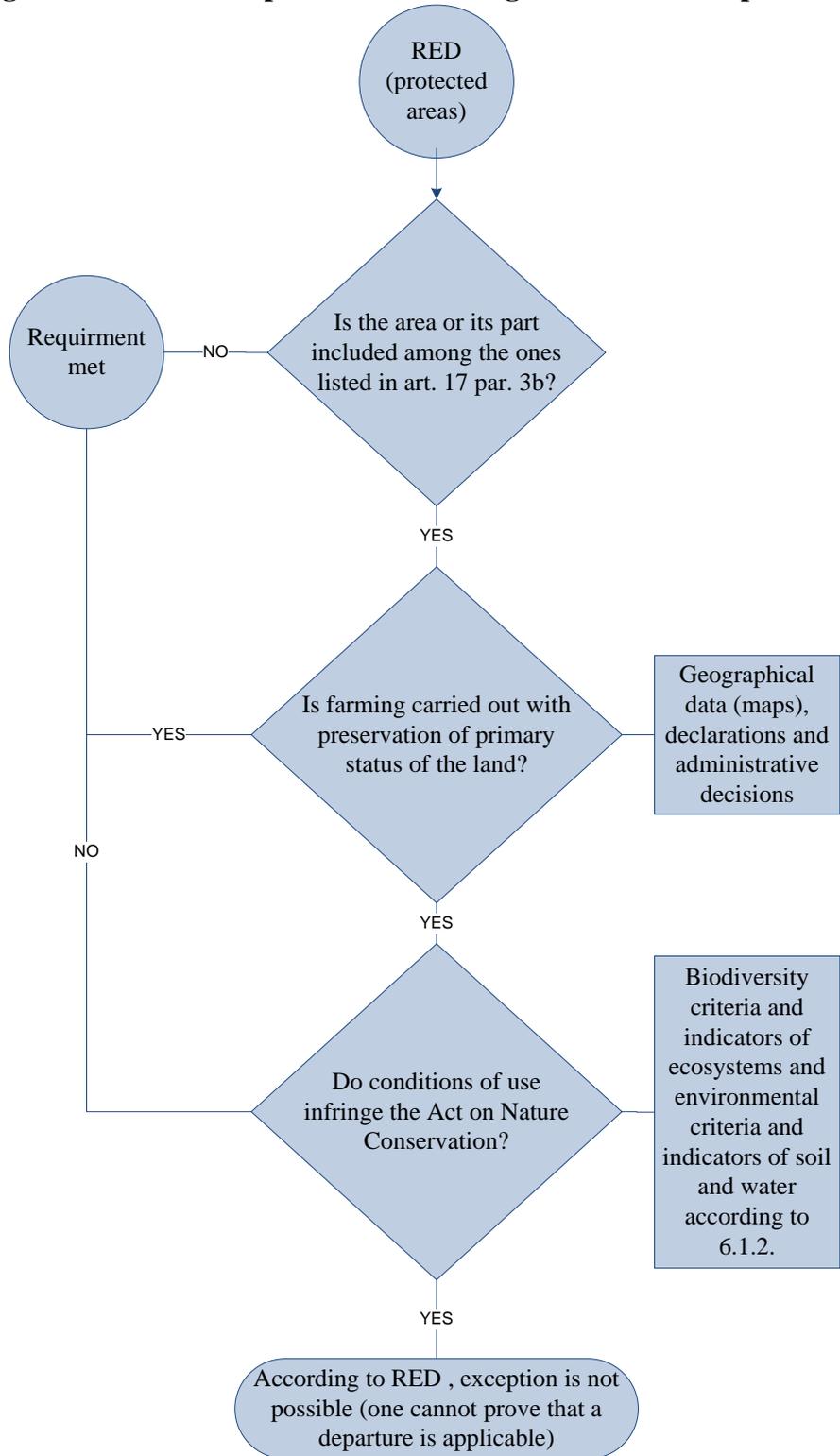
In the case where the nature protection purpose pertains to soil together with nutrients and water, the criteria and indicators for the environment should be taken into consideration for evaluation. Environmental criteria include a demonstration that raw materials production does not cause changes of protected land (e.g. soil erosion, change in soil structure or soil compaction). A specific soil management plan for heavy terrain transports or soil protection products is an indicator for this criteria. Another criteria to be considered is to check whether raw materials production from this area will lead to disturbance of the nutrient balance or affect the soil buffering capacity¹. Nutrients loss (such as through raw materials harvest or residue collection, leaching) is balanced by nutrient input (e.g. weathering, fertilization etc).

Additionally, the raw materials production should be evaluated whether it will lead to a significant negative change in water quality and/or in a sustainable supply of water. The existing water management plans that contain measures of riparian buffer zones protection preventing against nutrient accumulation or eutrophication, are indicators for this criterion.

Figure 3 shows the check path for areas designated for nature protection.

¹ The low soil buffering capacity increases soil susceptibility to degradation by acid rains or used fertilizers.

Figure 3 – Evaluation path for areas designated for nature protection



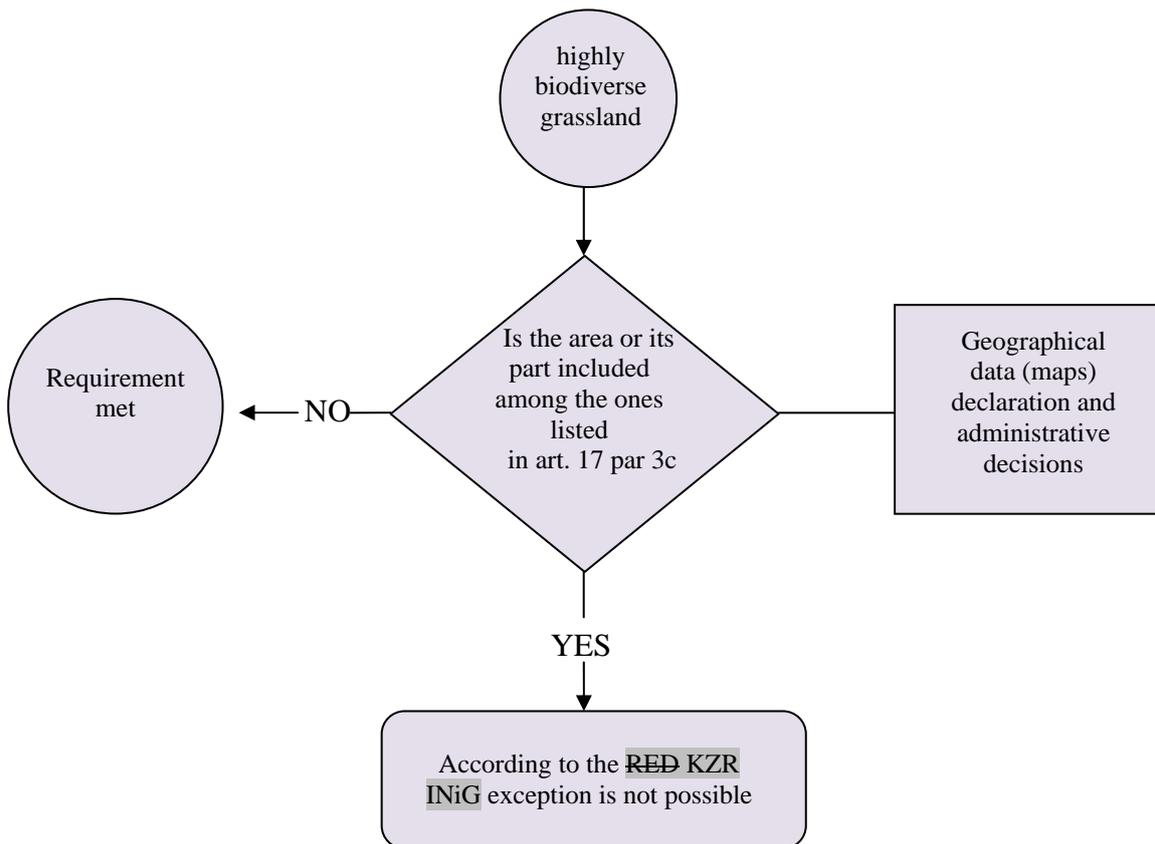
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6.1.3 Non-natural highly biodiverse grasslands

After the establishment of the criteria and geographic ranges by the European Commission to determine which grassland can be considered to be highly biodiverse natural or non-natural grassland, this standard documentation will be updated accordingly and resubmitted to the European Commission for approval. Until approval, the conversion of grassland will remain prohibited.

According to the KZR INiG System's requirements, any conversion of highly biodiverse grasslands after 1st January 2008 is prohibited.

Figure 4 – Evaluation path for grasslands



7. Check list

KZR INiG System/ 10/ Guidelines for auditor and conduct of audit.

8. References

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- i Maria M. Kenig-Witkowska, *Międzynarodowe prawo środowiska* (International Environmental Law), Wolters Kluwer Polska 2009.
- ii Convention on Biological Diversity, developed in Rio de Janeiro on 05.06.1992, ratified by Poland in 1996 (J. of Laws 2002, No. 184, item 1532)
- iii Act on Nature Conservation of 16.04.2004 (J. of Laws 2004, No. 92, item 880 as amended)
- iv Act on Forests of 28.09.1991 (J. of Laws 1991, No. 101, item 444 as amended)
- v Commission regulation (EU) No 1307/2014 of 8 December 2014 on defining the criteria and geographic ranges of highly biodiverse grassland for the purposes of Article 7b(3)(c) of Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and Article 17(3)(c) of Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources.