KZR INiG System/5

Land use for raw materials production – biodiversity

by The Oil and Gas Institute - National Research Institute

The KZR INiG System/5

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1. Introduction.

The document describes 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, agricultural biomass fuels and bioliquids raw materials and feedstocks.

In accordance with the KZR INIG System, biofuels, bioliquids and biomass fuels produced from agricultural biomass shall not be produced from raw materials cultivated and harvested from land with high biodiversity values. Directive 2018/2001RED II defines as land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:

a) primary forest and other primary wooded lands;

b) highly biodiverse forest and other wooded land which is species-rich and not degraded;

c) areas designated for specific nature protection purposes;

d) highly biodiverse grasslands.

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

All of these requirements included in this document apply to 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 regulations 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 or not the farmers are covered by the direct support scheme, they are obliged to provide proofs on compliance with the sustainability criteria related to conservation of biodiversity. Farmers within the EU who supply raw materials for biofuels, agricultural biomass fuels or bioliquids production but are not covered by this EU control system must meet all KZR INiG System requirements.

2. Normative references

The normative references, covering all aspects of the KZR INiG System, are the following linked documents, which should be read in conjunction.

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 /5/ Land use for raw materials production – biodiversity

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

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

KZR INiG System /8/ Guidelines for the determination of the life cycle per unit values of GHG emissions for biofuels, biomass fuels and bioliquids

KZR INiG System /9/ Requirements for certification bodies

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

KZR INiG System /11/ Forest biomass

3. Definitions

System KZR INiG /2/ Definitions

4. Description and requirements

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

A reference date, i.e. January 2008, applies to 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 not, in consequence of which a change in “land status” defined according to RED has occurred or not. "Land-use change” should be understood as changes occurring in reference to the status of the area surface. For example, a change of grassland to cropland is a change in land use, as opposed to a transition from cultivation of one plant (such as corn) to another (such as rape).

Croplands also include fallow lands 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, bioliquids and biomass fuels produced from agricultural biomass shall not be made from raw material obtained from land that was primary forest or other wooded land in or after January 2008, whether or not the land continues to have that status. Primary forest and other wooded land is defined as 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.

Agricultural producers shall prove that the land from which the raw materials for biofuels, agricultural biomass fuels or bioliquids production have been obtained does not have the status of primary forest or other wooded lands (e.g. natural forests). Examples of acceptable evidence (see also section 6.1.) are an excerpt from the land register (containing information about land use purpose) or an 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 January 2008, the excerpt from the land register must precede this date.

4.2. Highly biodiverse forest and other wooded land

Biofuels, bioliquids and biomass fuels produced from agricultural biomass taken into account for national renewable targets shall not be made from raw material obtained from land with a high biodiversity value. Highly biodiverse forest and other wooded land means a land which in January 2008 had status of highly biodiverse forest and other wooded land which is species-rich and not degraded, or has been identified as being highly biodiverse by the relevant competent authority, whether or not the land continues to have that status. Unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes.

For the definitions “species-rich” and “degraded” please see the KZR INiG System/2.

4.3. Areas designated for nature protection

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

- 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 30(4)of the RED II;

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

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 for protection of plant, animal and fungi species.

It is permitted to cultivate the raw materials on lands that are designated for nature protection as long as evidence is provided that the production of raw materials does not interfere with the nature protection purpose in question.

The KZR INiG System will communicate to economic operators any details of lists of protected areas as soon as they become available from the EC. The standard documentation will be updated accordingly. This is important, for example, in cases 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	Protected area type
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

4.4. Highly Biodiverse Grasslands

Biofuels, bioliquids and biomass fuels produced from agricultural biomass shall not be made from raw materials obtained from land that was highly biodiverse grassland in or after January 2008, whether or not the land continues to have this status.

Grasslands located in the specific geographic ranges of the European Union listed in Article 2 of the Regulation No 1307/2014 shall always be regarded as highly biodiverse grassland, unless evidence is provided that the harvesting of the raw material is necessary to preserve the grassland status.

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

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. Grassland further excludes continuously forested areas as defined in Article 29(3)(d) of Directive 2018/2001, 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.

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;

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, i.e. 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, i.e. 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

- significant importance to endemic or restricted-range species; or

- significant importance to intra-species genetic diversity; or

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

- regional or national significance, or a highly threatened or unique ecosystem.

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

5. Calculation method

Not applicable.

6. Conformity check

6.1. Primary forests and other primary wooded lands

Based on an initial analysis of results, it is anticipated that three scenarios will prevail in the 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 on or after January 2008 it was converted from land of another status.

In this case, the participant must prove that in/after January 2008 the area did not have primary forest status.

Scenario 2 – the farm was created before January 2008.

In this case it must be proved in a credible way that in January 2008 the area did have the status of cropland, therefore the requirement concerning primary forest will be met.

Scenario 3 – the farm was 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 the farm's geographic boundaries, in order to check whether the area was a primary forest in or after January 2008.

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

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

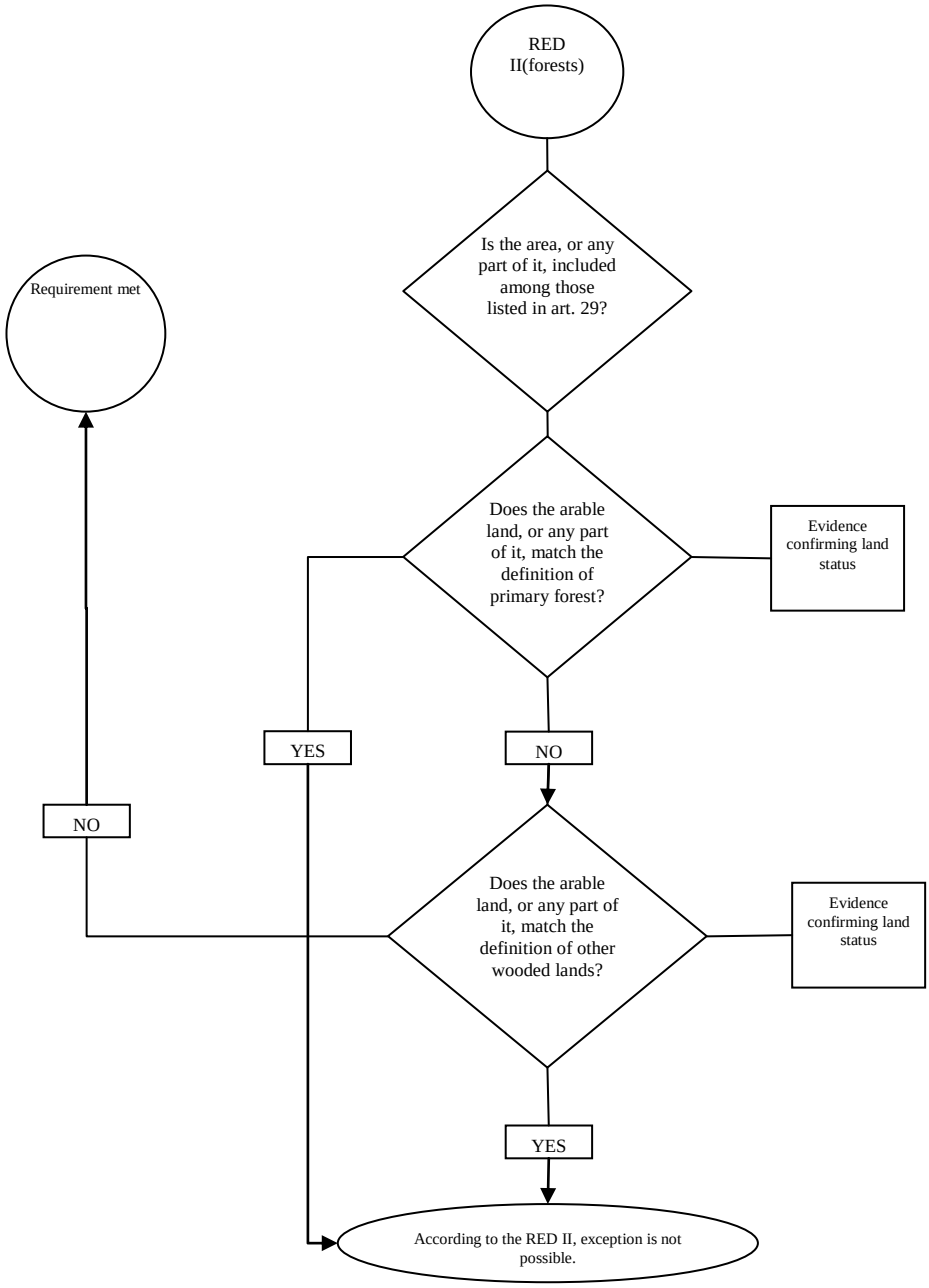
— an aerial photograph of the land, showing it to be planted with the defined raw materials (positive), or

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

Figure 1 shows diagrammatically the evaluation for primary forests and other primary wooded lands.

Figure 1 – Evaluation diagram for primary forests and other primary wooded lands



6.2. Highly biodiverse forest and other wooded land

To ensure compliance with the highly biodiverse forest and other wooded land criteria, operators are required to provide evidence that the biofuels, bioliquids and biomass fuels produced from agricultural biomass are not produced from raw materials from land with high biodiversity value in or after January 2008, as per Article 29.3(b) of the REDII.

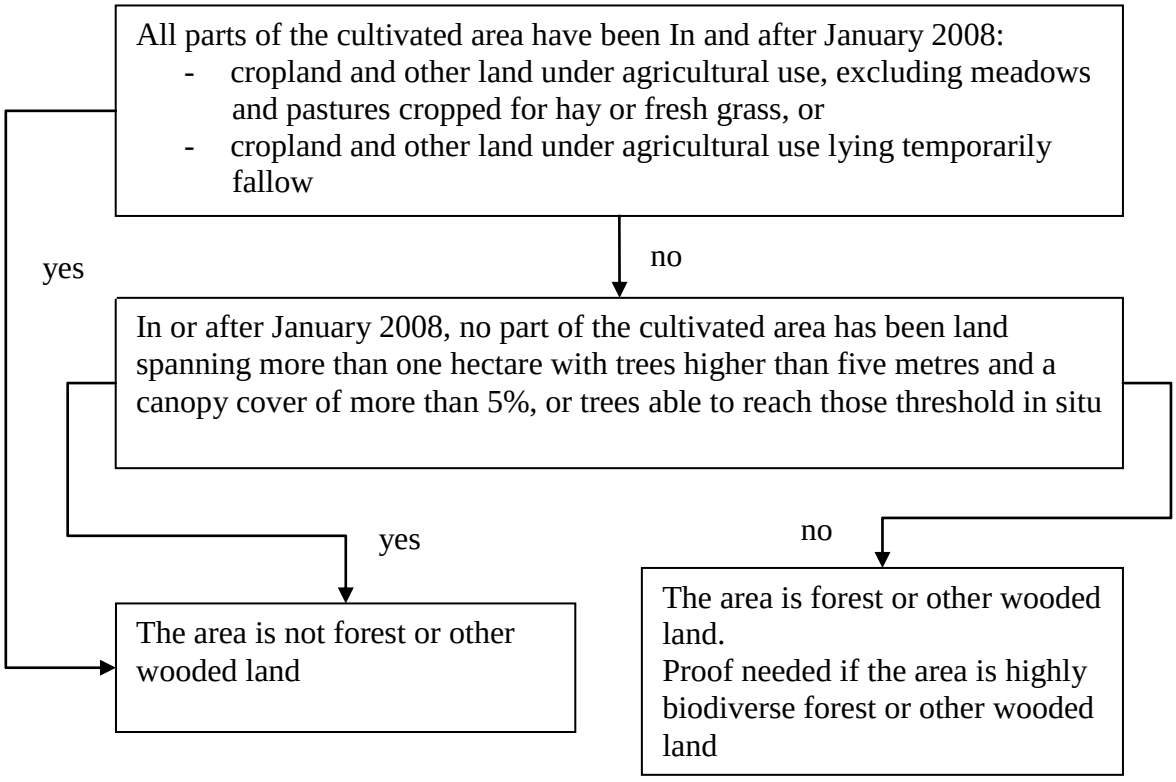
The definitions of 'degraded' and 'species-rich' included in Commission Regulation (EU) No 1307/2014 shall be applied in the context of this criterion.

Definitions of high biodiverse forest are placed in document System KZR INiG/2.

The following three steps are recommended in order to confirm compliance with highly biodiverse criterion:

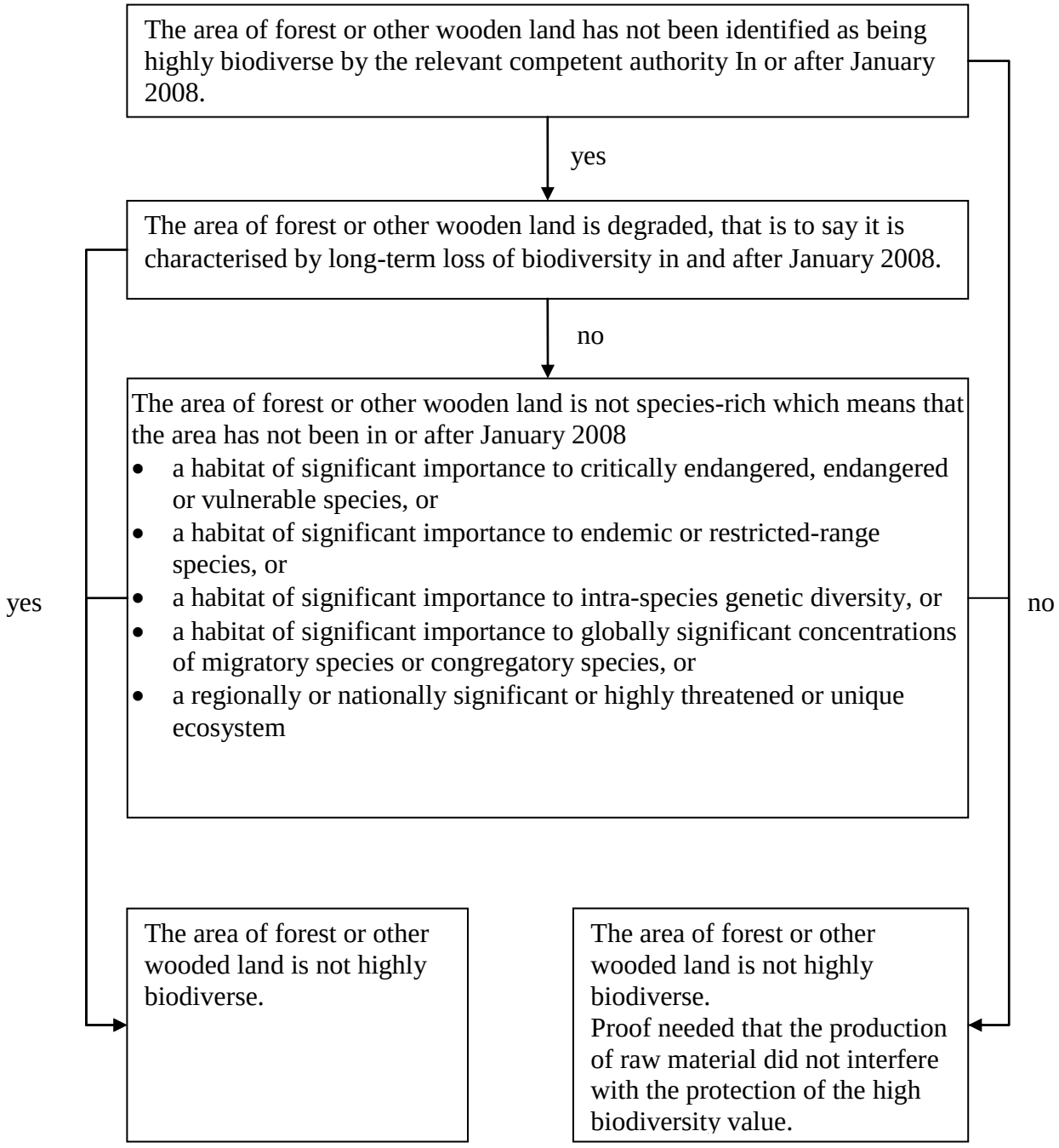
1. Identifying whether a harvesting area has been forest or other wooded land in or after 2008 (decision tree A in Figure 12 and Table 19).

Figure 2 Decision tree to identify forest and other wooded land



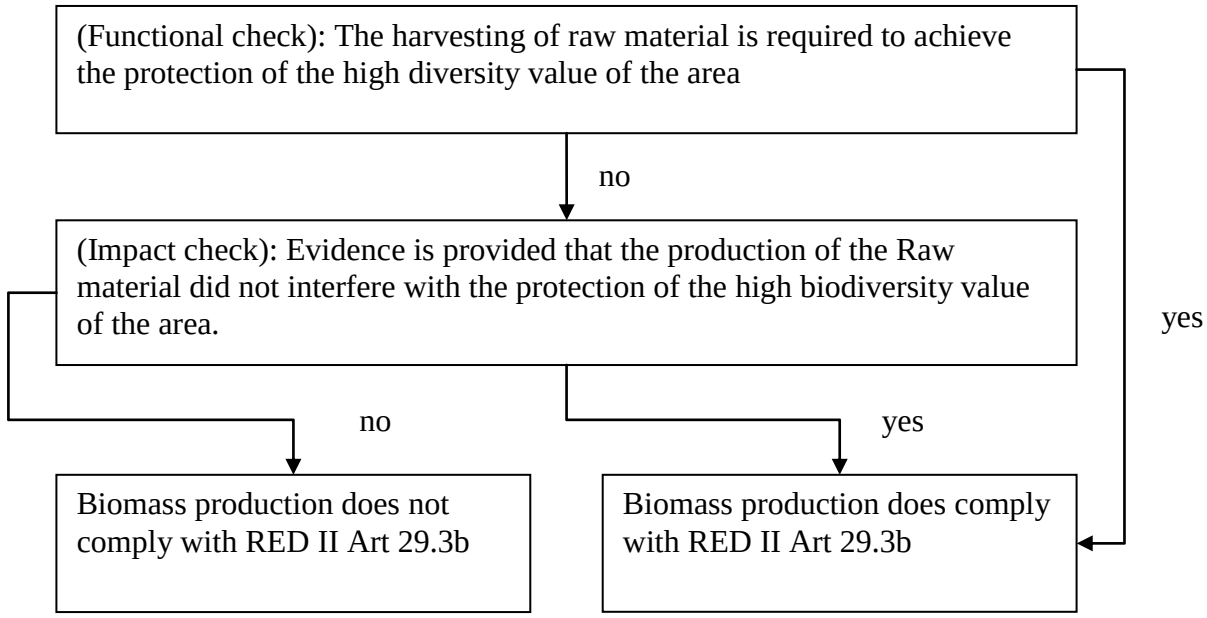
2. Determining whether a harvesting area has been highly biodiverse forest or other wooded land in or after 2008 (decision tree B in Figure 13 and Table 19).

Figure 3. Decision tree to determine highly biodiverse forests and other wooded land



3. Showing evidence that that the production of raw material did not interfere with the protection of the high biodiversity value of highly biodiverse forests and other wooded land (decision tree C in Figure 14 and Table 19).

Figure 4. Decision tree to provide evidence that the production of raw material did not interfere with the protection of the high biodiversity value of highly biodiverse forests and other wooded land



6.3 Areas designated for nature protection

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

Biodiversity criteria

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

This is one of the criteria that should be examined to verify whether the integrity of the relevant ecosystem and habitat of rare, threatened and endangered species in this area has been maintained. Other examples of the biodiversity criteria are: cessation of activities

during critical seasons for the ecosystem (e.g. during the breeding season); and establishment of management plans for the specific area, indicating the existence of ecological corridors, species habitat or critical components of indicator species, and maintained protection of certain species populations. Moreover, the harvest and removal of invasive species, or use and control of genetically modified organisms (GMO), are allowed unless they conflict with nature protection. Additionally, land-use change (afforestation, deforestation, etc.) should be evaluated to determine whether it violates nature protection.

Environmental criteria

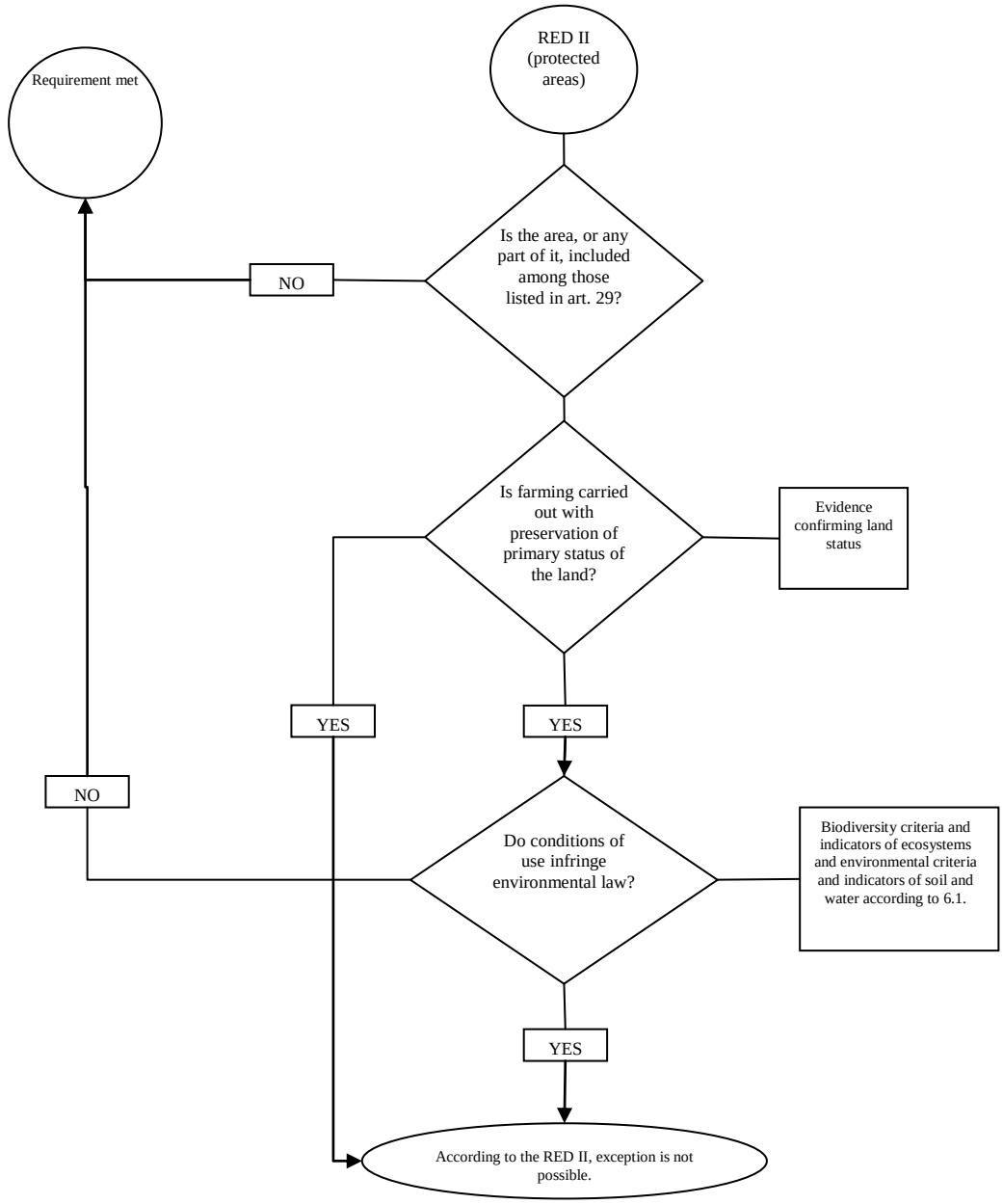
In cases where the nature protection pertains to soil, together with its nutrients and water, environmental criteria and indicators should be taken into consideration for evaluation. It should be demonstrated that raw materials production does not cause changes of protected land (e.g. soil erosion, change in soil structure or soil compaction). To assess whether agricultural activity (raw materials production, transportation, protection of plants, etc.) violates nature protection rules, a soil management plan can be implemented. Another aspect to be considered is whether raw materials production from the area will lead to disturbance of the nutrient balance or affect the soil buffering capacity[1]. Nutrient loss (such as through raw materials harvest or residue collection or leaching) should be balanced by nutrient input (e.g. weathering, fertilization, etc).

To determine whether agricultural activity will cause a significant negative change in water quality and/or supply, a water management plan can be implemented, including measures for riparian buffer zones to prevent nutrient accumulation or eutrophication.

Figure 5 shows diagrammatically the evaluation pathway for areas designated for nature protection.

[1] Low soil buffering capacity increases soil susceptibility to degradation by acid rain or fertilizers.

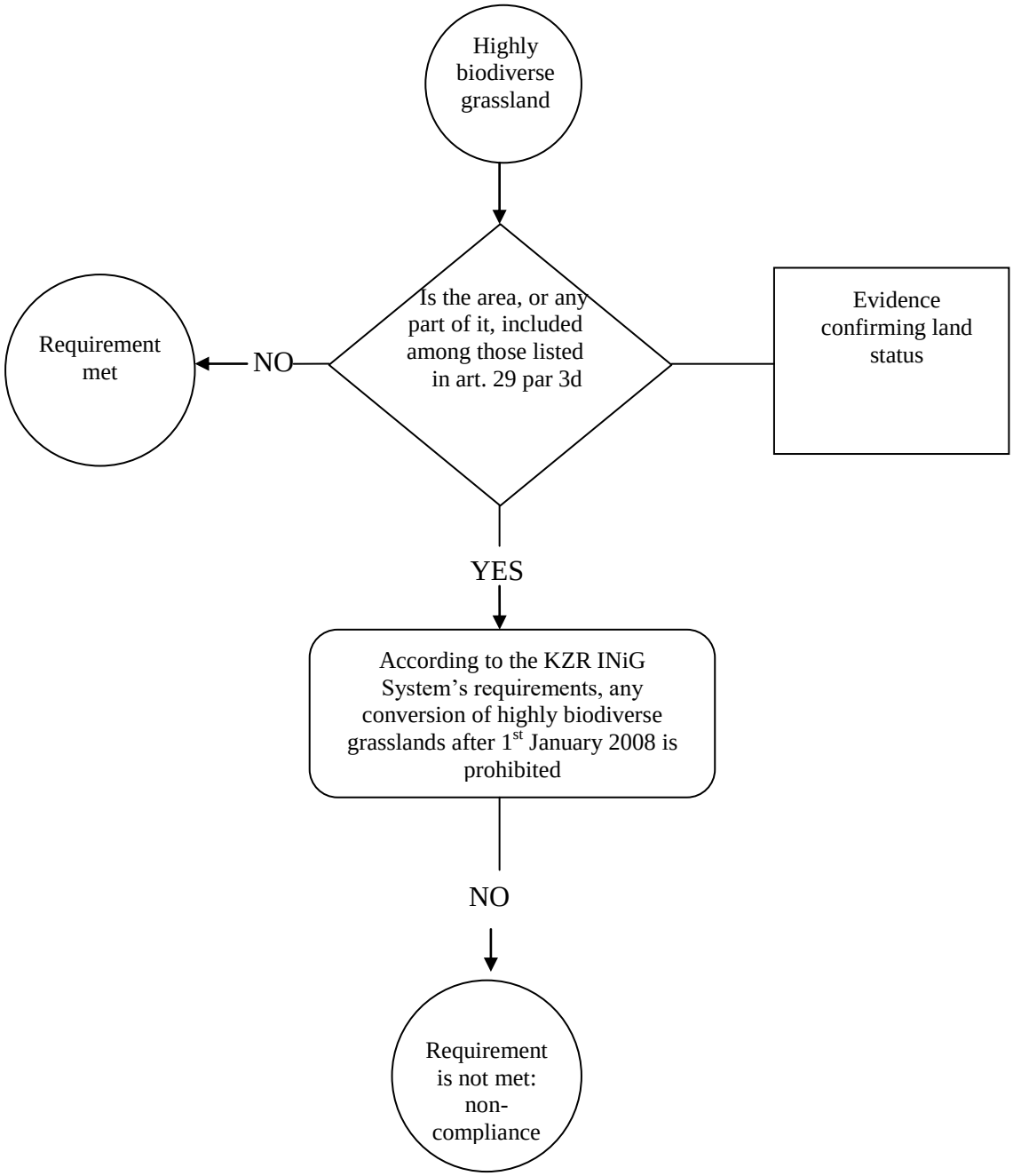
Figure 5– Evaluation procedure for areas designated for nature protection



6.4 Non-natural highly biodiverse grasslands

According to the KZR INiG System's requirements, any conversion of grasslands in or after January 2008 is prohibited.

Figure 6 – Evaluation path for grasslands



NOTE

Proofs of compliance with land-related criteria are demonstrated in many different ways, including aerial photographs, satellite images, maps, land register entries/database, site surveys, or other reliable documents. The evidence can be 'positive' or 'negative'. Geospatial and/or non-geospatial data may not always be sufficient to allow a firm conclusion on the status of the land for the RED II. In those cases, on-site assessments (interviews with local experts or communities) could provide the necessary additional information. Further guidelines concerning verification of land status are given in the document KZR System/9.

7. Checklist

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

8. Changes compared to the previous edition

Date	Issue No.	Section	Previous requirement	Current requirement

8. References

Maria M. Kenig-Witkowska, *Międzynarodowe prawo środowiska* (International Environmental Law), Wolters Kluwer Polska 2009.

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).

Act on Nature Conservation of 16.04.2004 (J. of Laws 2004, No. 92, item 880 as amended).

Act on Forests of 28.09.1991 (J. of Laws 1991, No. 101, item 444 as amended).

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 29(3)of Directive 2018/2001of the European Parliament and of the Council on the promotion of the use of energy from renewable sources.