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**COMMISSION REGULATION (EU) No .../..**

**of **XXX****

**on detailed definitions for severely degraded land and heavily contaminated land for the purpose of Annex IV of Directive 98/70/EC of the European Parliament and of the Council and Annex V of Directive 2009/28/EC of the European Parliament and of the Council**

**COMMISSION REGULATION (EU) No .../..**

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**on detailed definitions for severely degraded land and heavily contaminated land for the purpose of Annex IV of Directive 98/70/EC of the European Parliament and of the Council and Annex V of Directive 2009/28/EC of the European Parliament and of the Council**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels<sup>1</sup>, and in particular Article 7d(8) thereof,

Having regard to 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<sup>2</sup>, and in particular Article 19(8) thereof,

Whereas:

- (1) The rules for calculating the greenhouse gas impact of biofuels, bioliquids and their fossil fuel comparators established by Directive 2009/28/EC and the rules for calculating life cycle greenhouse emissions from biofuels established by Directive 98/70/EC include a bonus if biomass is obtained from restored degraded land. As specified in those Directives, this bonus can apply to severely degraded land and heavily contaminated land when that land was not in use for agriculture or any other activity in January 2008 and provided that a steady increase in carbon stocks as well as a sizeable reduction in erosion phenomena for severely degraded land are ensured and that soil contamination for heavily contaminated land is reduced.
- (2) The Commission is required to establish detailed definitions, including technical specifications, for the categories of severely degraded land and heavily contaminated land.
- (3) The definition of severely degraded land provided for in Directives 98/70/EC and 2009/28/EC is based on well-established concepts of salination, organic matter content and erosion by water and wind. Therefore, it is appropriate to draw on global concepts for establishing their detailed definitions and technical specifications.

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<sup>1</sup> OJ L 350, 28.12.1998, p. 58.

<sup>2</sup> OJ L 140, 5.6.2009, p. 16

- (4) Contamination of land can be caused by many different pollutants. The risk from human exposure depends *inter alia* on a variety of soil factors, hydrology, climate, land use and crop preference for uptake of contaminants. The definition of heavily contaminated land provided for in Directives 98/70/EC and 2009/28/EC relates to land that is unfit for the cultivation of food and feed due to soil contamination, which is different from commonly used concepts of land contamination. It is therefore appropriate not to establish limit or threshold values, but to base the detailed definitions and technical specifications on the way contamination can lead to land being unfit for the cultivation of crops that can be used for food or feed. Since the definition does not concern contaminated land in general, but rather heavily contaminated land specifically, it is appropriate for the detailed definitions and technical specifications to reflect this.
- (5) By setting the detailed definitions and technical specifications for degraded land, these definitions and specifications also determine which land does not qualify as degraded land and can, if that land previously did qualify as degraded land, be considered restored degraded land. It is therefore appropriate for severely degraded land to use the same definitions and specifications also to specify the Directives' parameters for restored degraded land. For heavily contaminated land also food safety issues need to be taken into account for determining what can be considered restored.
- (6) The measures provided for in this Decision are in accordance with the opinion of the Committee on Sustainability of Biofuels and Bioliquids,

HAS ADOPTED THIS REGULATION:

#### *Article 1*

For the purpose of this Decision the following definitions shall apply:

- (1) 'deep soils' means soils in which plants can achieve a rooting depth of 50 centimetres or more;
- (2) 'shallow soils' means soils in which plants can achieve a rooting depth of less than 50 centimetres;
- (3) 'topsoil' means the upper layer of soil with higher biological activity and higher organic content, commonly darker in colour than underlying layers;
- (4) 'subsoil' means the layer of soil between the topsoil and bedrock;
- (5) 'lithic layer' means a layer where continuous hard rock impervious to roots is present;
- (6) 'hard pan' means a hard soil layer impervious to roots;
- (7) 'hollow' means an indenture or concave in a surface caused by wind overblowing;

- (8) 'hazardous substances' means substances or mixtures within the meaning of Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and the Council<sup>3</sup>.

## *Article 2*

Severely degraded land as defined in point 9(a) of Part C of Annex IV of Directive 98/70/EC and in point 9(a) of Part C of Annex V of Directive 2009/28/EC means land that, for a significant period of time, has:

- (1) been significantly salinated, that is to say land where, due to human intervention, more than 80% of the surface area has soil with an electrical conductivity of more than 8 deci-siemens per meter measured as an average of the top 30 centimetres of the soil through the method of measuring electrical conductivity of saturation extracts; or
- (2) presented significantly low organic matter content, that is to say below 1% soil organic matter in the top 30 centimetres of the soil, and has been severely eroded, that is to say where more than 25% of a one hectare surface area is affected:
  - (a) in the case of shallow soils by the removal of part of topsoil and exposure of lithic layer or hardpan; or
  - (b) in the case of deep soils:
    - (i) by the removal of all topsoil and part of subsoil; or
    - (ii) with gullies more than one meter deep and less than 20 meters apart; or
    - (iii) with hollows of more than 15 centimetres deep.

## *Article 3*

Heavily contaminated land as defined in point 9(b) of Part C of Annex IV of Directive 98/70/EC and in point 9(b) of Part C of Annex V of Directive 2009/28/EC means land that is unfit for the cultivation of food and feed, that is to say land that is contaminated in such a way, through a build-up of hazardous substances, that no vegetation can grow on it.

## *Article 4*

- (1) A severely degraded land converted to agriculture use is considered as having ensured a steady increase in carbon stocks if the soil organic matter in the top 30 centimetres of the soil is on track to reach 1% or higher at the end of the 10 year period from the date of the conversion.

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<sup>3</sup> OJ L 353, 31.12.2008, p.1.

- (2) A severely degraded land converted to agriculture use is considered as having ensured a sizeable reduction in erosion phenomena if less than 25% of the surface area is affected by the erosion phenomena referred to in Article 2(2) of this Decision at the end of the 10 years period from the date of the conversion.
- (3) A heavily contaminated land converted to agriculture use is considered as having reduced its soil contamination if there is a reduction of the level of hazardous substances, before the commencement of feedstock production on the land, so that a risk assessment shows that the feedstock produced on this land does not contain contaminants or hazardous substances that would entail any significant risk for human health and the environment which includes that it would be safe according to Article 14 and 15 of Regulation (EC) No 178/2002 of the European Parliament and the Council.

#### *Article 5*

This Regulation shall enter into force on the 20<sup>th</sup> day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the Commission*  
*The President*