
Institute of agriculture and tourism Poreč

# The legal regime of olive pomace deriving from olive oil extraction at olive mills, waste, by-products and biomass.

## Through the European Union directives

**FOREWORD: The IEE Project "MARKET of OLIVE RESIDUES for ENERGY"**

The main objective of "M.O.R.E." is to generate renewable energy using solid residues deriving from olive oil production process. The project involves 5 European countries (the main world olive oil producers): Italy, Spain, Greece, Croatia and Slovenia, by means of six different local organizations that make up the partnership. In Italy, two partners are involved: the project leader - Liguria's regional agency for energy, ARE Liguria – and the regional association of the four Ligurian Chambers of Commerce – Unioncamere Liguria.
In Croatia the partner is IPTPO, the Institute for Agriculture and Tourism
In Greece the partner is the Regional Agency for Energy of Central Macedonia
In Slovenia the partner is the Science and Research Centre in Koper
In Spain the partner is AGENER, the Regional Agency for Energy Management.
Running from November 2007 to April 2010, the project MORE aims to:

- Identify different methodologies to generate renewable energy using solid olive residues and produce related guidelines;
- Involve public and private stakeholders to develop the local markets and create supply chains;
- Carry out training and promotional activities;
- Define business plans for energy facilities running on olive solid residues;
- Deliver policy recommendations for local, national, EU governments.

**This document refers to a study on the legal framework in application in Republic of Croatia and possible suggestions at national Croatian and EU levels.**

# 1. Introduction.

## 1.1 The Olive Mill Production Process and Possible Uses of Olive Mill Pomace.

Facts:

The olive mill processes olives directly after harvesting without any special treatment. Olive oil is produced by grinding olives and extracting the oil by mechanical means.
Pomace is a residue from this process.
There are several variables in this process that affect the physical properties of pomace, which, depending on the case can range from a solid paste to a semi-liquid mash.[1]
In Croatia the technique generally used produces a solid residue (although not completely dry). This substance is the main subject of this research.
To date the possible uses of pomace are as follows:

(i) produce lower quality oil as a food product by means of a chemical process at facilities known as "olive pomace refineries";
(ii) spreading over agricultural fields as fertilizer (or mixing it with ground for backfill, for instance at quarries);
(iii) used in animal feed;
(iv) fuel (or other forms of recovery) for plants producing energy from biomass;
(v) disposal/recovery as waste.

## 1.2 The Objectives and Significance of the Research.

The aim of this research is to clarify the legal regime for olive pomace gathered for the purposes mentioned above and to recommend legal amendments to assist olive mills and in particular to favour energy production from biomass.

a) concerning the first, the research especially focuses on the possible need to comply with the rules provided for waste management even when not falling under point (v) mentioned above, while it would appear appropriate to rule out the applicability in limine of regulation (EC) no. 1907/2006 concerning the registration, evaluation, authorisation and restriction of chemicals (REACH).[2]

More information's on link:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=oj:l:2006:396:0001:0849:en:pdf

[1] For further information on the various methods of processing olives in olive mills to extract olive oil for human consumption please see, for instance, TDC *Olive - By-product reusing from olive and olive oil production*, at www.biomatnet.org/publications.
[2] This exclusion is based on the provisions of art. 2.7(b), with respect to point 8 of annex V, on substances present in nature that are not chemically modified and cannot be classified as hazardous substances pursuant to directive 67/548.

The significance of the issue in question is that if the rules on waste management were applied the operators of olive mills would be burdened with extensive “bureaucratic” and operational obligations and would suffer a considerable financial impact as well as be exposed to a series of sanctions, also criminal, should they not comply with the aforementioned rules.

Considering the small "size" of most Croatian olive mills such an outlook would put their very existence at risk and jeopardize not only the operators and workers, but also the growers that resort to their services.

Nonetheless, it should not be overlooked that from the standpoint of pure legal method it would be wrong to move on the consideration (though understandable) for the needs and expectations of a certain sector and “bend” the interpretation of environmental rules to meet their needs, although there are - in the framework of EU agricultural policy - also other European rules provided to aid olive oil production.[3]

Thus, it will be necessary to start from an objective reconstruction of the legal framework on waste management (also independently from current procedures) to determine in a "neutral" manner (as much as possible) the actual legal regime to regulate olive pomace regardless of the concern raised for the sector. Even now, in light of recent developments in EC law and when considering the aforementioned uses, it should be possible to exempt olive pomace from being subject to the rules on waste management, albeit not a priori or in a sweeping manner. Nonetheless, certain legal specifications / amendments recommended hereafter should be taken into consideration, which is one of the main purposes of this research.

From another point of view, the availability of olive pomace from mills can contribute to the development of installations for generating energy from biomass, which should be fostered by member states in accordance with EU laws on renewable energy sources. Same is generated for countries which are in accession negotiations like Republic of Croatia is in this particular moment.

Here it would be important to examine the relating legal regime, which has been done herein, and to determine national legal rules that might contribute to achieving the aforementioned objective, especially considering the fact that, at the moment, biomass installations are not very widespread in Republic of Croatia.

**More you could reed on link of EU directive 73/2009 EC**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:241:0026:0026:EN:PDF

**More you could reed on link of EU directive 1432/2004 EC**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:264:0006:0008:EN:PDF

[3] In particular see regulation (EC) no. 73/2009 and regulation (EC) no. 1432/2004.

## 2. The Issue of Olive Pomace in Relation to the Concept of Waste and By-product.

It would be necessary to start off from the issue of classifying olive pomace, in relation to the concept of waste and the concept of by-product.

### 2.1 Concepts of Waste and By-product.

#### 2.1.1. Development of the Concepts.

a) The concept of waste (in the context of the rules concerning waste) is one of the fundamental pillars of community environmental policy. The latter is primarily geared towards achieving the general objectives set forth in art. 174 of the EC Treaty (now art. 191), in particular: safeguard, protect and improve environmental quality; protection of human health; careful and rational use of natural resources. The same requirement sets a high degree of protection and compliance based on a series of principles, including the precautionary principle and the principle of preventive action, remedying of environmental damage at its source and the well-known “the polluter-pays" principle. For that purpose a series of community directives followed and gradually evolved over time to define waste and regulate its management (i.e., any kind of handling/treatment whether intermediate or final).

b) Since 1975 the definition of “waste” has been the following: “any substance ... which the holder discards or has decided or is required to discard” (art. 1(a), paragraph 1 of directive 75/442) or substantially equivalent definitions such as the current “... which the holder discards or intends or is required to discard” (art. 1(a)) of directive 2006/12 and now art. 3.1(a) of directive 2008/98).
This definition gave rise to extensive and complex case law interpretation and application by both the Court of Justice and by the Courts of the various member states. Republic of Croatia since all those cases have not cases like this where European Court of Justice argue this problem issue. But soon Croatia could be exposed with this legislative practice. Especially because of Croatia still does not have implemented control system which inspect if Croatia harass about EU directives or not.

In particular, it is difficult to define "discard", even when considered only an "intention".
c) For the purpose of studying the rules regulating olive pomace it would be necessary to take into consideration, albeit briefly, the interpretation made within the EC Court of Justice concerning materials and substances deriving from a production cycle that are not considered the main purpose of the cycle.
The endless varieties of cases presented provided examples of industries that, in the production cycle for certain goods, inevitably produce "unwanted" materials even if the latter can be used for other production processes or where such materials are completely natural (such as olive pomace from olive mills).

The Court of Justice, in these cases and still others ( see Italian examples ) [4] was asked to clarify, through a series of judgments, whether the "discard" or "intention to discard" was present in order to make the concept of waste applicable also for the substances not included as the primary objective of the production process. The Court above all referred to the objectives and fundamental principles of community environmental policy and inferred that the concept of waste should be based on a broad interpretation and not a restrictive one.

A number of specifications were made and in particular:

1. if a substance/material is not the primary aim of the industrial process but derives from that process (as a material not deliberately produced), then, in general, it is considered a material to "discard";
2. there can, however, be exceptions since the producer does not necessarily discard or intend to discard the material;
3. therefore, the point is to establish where such conduct/intention can be excluded;
4. there are certain conditions where it would be possible, namely:
   - the degree of likelihood that the substance will actually be used;
   - whether the substance can be used immediately, or without considerable delay, after the production process from which the substance/material derives;
   - the absence of preliminary processing treatment required for that purpose;
   - the economic benefit the producer of the substance/material receives if it is used;

5. in addition to the conditions above, use shall not lead to overall adverse environmental or human health impacts exceeding those entailed in using ordinary raw materials or resources that the substances/materials would replace.

**From this standpoint there are certain clarifications needed, namely:**

6. the fact that the substance/material is subject to operations similar to those provided by the directive for waste disposal (for instance, incineration or landfill disposal) does not in itself and necessarily mean that they are to be automatically and inevitably classified as waste. This because such operations do not necessarily mean "discard", which is the main focus of the concept in question;
7. on the other hand, the simple fact that the substance/by-product in question can be recovered for financial purposes or as fuel in line with environmental protection requirements and without transformation does not in itself

[4] For instance, EC Court of Justice, 22 December 2008, C- 283/07, *Commission v. Italian Republic*; 24 June 2008, C-188/07, *Commune de Mesquer*; 18 December 2007, C-194/05, *Commission v. Italian Republic*; 18 December 2007, C-263/05, *Commission v. Italian Republic*; 11 November 2004, C-457/02, Niselli; 11 September 2003, C-114/01, *AvestaPolarit Chrome Oy*.

determine whether it is to be "discarded" and so considered as waste,[5] since the mere possibility of future use is irrelevant if, in any case, the producer or holder discards or intends to discard the substance;

8. similarly, a substance that has the same properties and characteristics of a raw material can still be considered as waste if the holder discards it or intends to discard it (as in the case of the quarry operator that leaves extraction debris on the soil for a certain period);[6]

It follows that it will be necessary to check, on a case-by-case basis and supported by evidence, whether the conditions mentioned above apply,[7] while certain national laws do not conform to community law, where they exclude "by category" substances or materials from the concept of waste.

**Example:**

National laws in all EU countries must have one and unique opinion about this problem. To sum up, a substance, though not "desired" as the primary aim of the production process, can be excluded from being considered as waste when it can be re-used without any preliminary processing as a part of the same production process[8] or to meet the requirements of producers other than the one that produced the substance[9] and where it is certain that it will be used immediately or in any case within a reasonable amount of time and without having adverse environmental or human health impacts in comparison to any impacts from using raw materials.

**So according to this matter :**

1. Beyond the inevitable debate arising from the guidelines set by the Court, practical doubts still remained for operators. The concept of waste not as general categories of substances/products/processes and instead strongly focused on a case-by-case approach with undefined variables, such as the implications of "discard", does not guarantee a priori that the assessments made by the parties involved when managing the substances necessarily coincide with assessments made by the competent bodies responsible for enforcement and applying penalties and with the assessments made by the judges.
2. The EC Commission made an attempt to reduce these doubts – necessarily within the "scope" set by the Court, considering the legal value of its judgments – by issuing an interpretation communication on waste and by-products.[10] With this act the Commission intended to strengthen the measures and clarify key concepts such as the definition of waste (as opposed to materials that are not the primary aim of a production process, but can be considered as by-products and not waste) in order to

[5] See *Arco Chemie* judgment, point 65.
[6] See *Palin Granit Oy* judgment, point 39.
[7] See *Arco Chemie* and *Palin Granit* judgments, points 83 et seq. and 36 et seq. respectively.
[8] See *Palin Granit Oy judgment*, point 36.
[9] To that effect see *Commission v. Spain*, point 90.
[10] Communication issued by the Commission to the Council and the European Parliament concerning the interpretative communication on waste and by-products, Com(2007) 59 final.

facilitate the work of competent authorities in determining on a case-by-case basis whether certain materials are to be considered as waste and, at the same time, adequately inform operators how such decisions are made.

With this regard the communication "explained" the concept of waste in light of the interpretation provided by the Court of Justice and produced a kind of checklist together with certain examples. The Commission also made a specification on the economic value of the materials in question, stating (like the Court of Justice had already done in the past) that selling these materials for payment can be considered evidence that they are not waste, but not considered unequivocal proof (since it is likely that the waste has their economic value[11]).

On the other hand, it added, it is always necessary to ensure that a token price is not offered in order to exclude a material from being classified as waste (even if it would seem unlikely to envisage manure used for agricultural purposes, which the Court considers a by-product and not waste, being sold at a price, and not even at a token price).

Croatian law who carried the waste NN 178/04 is made on traces of EU laws and according to this we could say that is Croatian system of waste disposal possible to implement in all categories of insured process and waste management withdraw also and waste economic valorization. Under this term here Croatian law defines possibilities to use waste as a by-product for producing energy.

**The Current Community Legal Framework.**

Republic of Croatia as a country currently on accession negotiations with EU must adopt complete legal and law EU gains.

According to this here in that document must be explained how the implementation run in the field of problem was defined by the M.O.R.E. project.

**Chronology:**

The European Parliament and Council took the developments and interpretations – though not sufficient to fully clarify – into consideration when drafting the new directive regulating waste and repealing the previous ones mentioned above.

EC Directive 2008/98 specifies in the preamble (under point 22), the need to avoid confusion with regards to the various aspects of the concept of waste and so make a distinction between waste and by-products.
Consequentially, the concept of waste (art. 3) remains unaltered and art. 5 of the directive introduce the concept of by-products in community law for the first time.

[11] To this effect see *Arco Chemie* judgment, point 65. Also confirmed by recital 42 in the preamble of Directive 2008/98, mentioned herein.

This has a very important innovative effect as a specification and limit to the concept of waste (though unaltered).

Even though the provisions regulating by-products are intended to act as exceptions or a departure from the rules on waste and so the interpretation is restrictive – in the spirit of environmental protection and precautionary principles set forth in art. 174 of the Treaty, which so far has led the Court to interpret the "opposite" concept of waste – the fact remains that, in any case, the meaning of "discard", which is the centre of the issue at hand, should be interpreted in light of the new directive, also with regard to the concept of "by-product", since it no longer only concerns case law interpretation, nor should it, necessarily, be found in the findings from time to time subject to the previous community rules.

Pursuant to art. 5 of the new directive, a by-product is "a substance or object, resulting from a production process, the primary aim of which is not the production of that item" provided it satisfies the following conditions:

- That the use of the substance or object is certain;
- That it can be used directly without any further processing other than normal industrial practice;
- That the substance or object is produced as an integral part of a production process;
- That the further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts".

One point that stands out is the omission – not by chance – of the economic/profit factor of use, which the Court had previously considered important "evidence" to consider a substance as a by-product, and now no longer appears as a requirement.

It would seem that this corresponds to a specific legal choice and thus art. 5 of the directive do not need any "supplemental" interpretation. This is also found in preliminary work which produced an "intermediate" version of the directive approved by the European Parliament on 13 February 2007,[12] containing a reference to the fact that there is a market for substances/materials classified as by-products. However, the final version does not contain any reference to a "market" and settles for re-use in a production process.

In order to clarify doubts rose in the past, art. 5 of the directive also provides that, following a specific procedure ("Committee procedure"), the EC Commission can "adopt measures to determine the criteria to be met for specific substances or objects to be regarded as a by-product and not as waste", i.e. acts laying down the conditions and

[12] P6_TC1-COD(2005)0281.

technical criteria, also in detail, for each sector and so also oil mills and olive pomace accordingly. Take, for instance, the requirement (though merely a generic reference in the directive) prohibiting preliminary processing "other than normal industrial practice", with regards to drying the olive pomace intended for use or the process needed when removing the pit from the pomace (national case-law, perhaps slightly excessive, has recently decided that this is sufficient to exclude it as a by-product[13]).

Similar specifications might be advisable to provide also by national sources (EU members and EU pre accessions negotiations countries) as long as they fully comply with the directive and any other measures adopted by the Commission.

In any case, an extremely important factor and innovation in the directive is the provision laid down by art. 5 where the measures of the Commission are even "designed to amend non-essential elements of this directive by supplementing it" (a provision which national legislation would not be able to provide).

This is an extremely important "flexibility" provision from a practical standpoint, which naturally falls under the general principles of the Treaty and so cannot be used in such a way that would put the environment or human health at risk – even only when considering the precautionary and preventive principle – however it can help simplify the rules on materials that do not have any such risks and at the same time can be classified as by-products only thanks to these non-essential amendments/supplements of the directive (take, for instance, the possible treatment necessary for olive pomace that, because of the production process used, are "produced" by the mill in semi-liquid form and so require extensive preliminary processing, unless new technologies emerge to enable it to be used in that state).

It is up to the Commission to assess in which cases and which precautions to take in order to exercise the power accordingly, on the one hand depending on legal clarity and on the other depending on the support of other community policies such as agricultural policies on the production of olive oil.[14]

A Commission acts which, in light of the above, should clarify the conditions to enable olive pomace to be considered as a by-product, albeit not of particularly high value, and would in any case be useful for the sector in question.

### 2.1.3. The Current National Legal Framework.

Croatian law this area encompasses through:

Regulation about categories, types and classification of waste with the Waste Catalogue and List of Hazardous Waste (NN 50/2005)

[13] See Criminal Cassation, Sec. III, no. 773 of 11 January 2010.
[14] Community production of olive oil is protected by community agricultural policy. For further information see regulation (EC) no. 79 of 19 January 2009, and regulation(EC) no. 1234 of 22 October 2007.

Croatian Water act (NN 153/2009)

Croatian waste act (NN 178/2004, 111/2006, 60/2008)

Decision about proclamation of amendments waste act (NN 87/2009)

Fund for environmental protection and energetically efficiency act (NN 107/2003)

Croatian energy act (NN 68/2001)

Strategy of energetically development of Republic of Croatia (NN 38/2002)

Act about proclamation of amendments the Law on Regulation of Energy Activities (NN 76/2007)

Regulations about the use of renewable energy and cogeneration (NN 67/2007)

Regulation on fees to boost electricity production from renewable energy sources and cogeneration (NN 33/2007)

Regulations about food hygiene (NN 99/2007)

Law on Appellations of Origin, Geographical Indications and Designations of traditional reputation of agricultural and food products ( NN 84/2008 )

**Quoted:**

EC Directive of the European Parliament and of the Council (links listed below)

All of those regulations through acts directly are connected with environment; they give us definition of waste and by-product with purpose to define national legislation with general EU parameters and law frame.

However new EU directive which would be prepare in near future ( EU En route ) will define residues as a substances made from agricultural production from farms, wood processes and filed production. All those by-products now are connected with market extension.

In republic of Croatia all those EU directives are cited and in implemented in our laws and regulations so general requirements are placed into a legislation control system.

## 2.2. Olive Mill Pomace: between Waste and By-product.

The details provided above now make it possible to analyse the classification and legal rules on pomace deriving from olive mills with respect to the legal rules on waste and by-products.

### 2.2.1. Olive Pomace as By-product.

#### 2.2.1.1. In general.

The conditions for using, as a by-product, pomace from the pressing process in an olive mill, without applying the rules on waste, can exist with regard to all its intended uses mentioned above: selling it to olive pomace refineries for chemical processing to extract olive pomace oil; spreading it as fertilizer (or mixed with backfill ground); as an additive in animal feed; for fuel (or similar), such as biomass, at energy production installations.

Having mentioned this, it is not the intention of the writer to hold that these uses are such to make olive pomace classified, without discussion, as a by-product rather than as waste. Indeed, it would be necessary for olive mills to organize their operations to ensure the conditions mentioned above are in place (since it is not possible to provide general categories or presumptions, as clarified by the Court of Justice through the aforementioned cases, which, on this point, is not superseded by the directive of 2001).

For the sake of clarity the existence of these conditions/requirements are set forth in a different order from the order set forth in art. 5 of directive 2008/98, as mentioned above).

Possible to see EU directive on this link:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0003:EN:PDF )

First of all, olive pomace deriving from mechanically pressing olives in the mill, for producing olive oil, conclusively meets the second condition where a by-product can be obtained only if the substance is produced as an integral part of the process (or not as the primary aim of production).

In addition, with regard to all the possible uses mentioned above, it might be possible to consider that olive pomace can be used directly without needing any special processing other than normal industrial practice and so essentially in the same state as when it is pressed in the mill, especially if the latter operates using the most common procedure found in Italy, which makes the pomace already sufficiently dry. Although it is true that further drying may sometimes be needed, it can still be considered (without prejudice to what was mentioned in section 2.1.2.) as “common industrial practice” and so it complies with the legal rules provided for by-products.

The rule regarding the certainty and immediate (or within a reasonable timeframe) use of the substance has not been underestimated.

Furthermore, the burden of proof regarding certainty and immediacy (or reasonable timeframe) falls on:

- the producer (whether entrepreneur or artisan) operating the olive mill
- and holder of the substance.

Regarding this point, for instance, evidence may include the fact that the producer has stipulated agreements with other operators, providing for the sale of olive pomace in amounts and respecting specific timeframes that would make it certain and consistent with the overall volume of production. Furthermore, the consolidated practice of actual re-use (for each olive mill taken into consideration) might also be sufficient, even in the absence of the aforementioned agreements.

It does not appear to be essential - in view of the community legal framework, and in particular the current provisions regulating by-products pursuant to art. 5. of directive 2008/98 – that use should be by virtue of agreements against payment or in any case against payment of a price (not a token price) in favour of the mill operator.

In Republic of Croatia does not exists national market for olive residues so the by-products have market value defined without regulations or contracts about using olive residues which must be connected with all requirements of EU directives.

Lastly, for what concerns the last condition prescribed by art. 5 of the directive, all the uses of olive pomace under study are certainly legal (since they are not forbidden and/or no rule is in force that would prevent such use), while it would remain to be seen case by case, also from a technical standpoint, whether and under what additional conditions (where necessary) the by-product satisfies

1. “all relevant product, environmental and health protection requirements”
2. and is without any “adverse environmental or human health impacts”

The vagueness of the clauses in the directive, which at first may give rise to uncertainty, would be lessened if the party interpreting the clauses make due consideration for the aforementioned case law underlying them.

It is correct to infer the meaning of point (i) that all relevant product, environmental and health protection requirements are to be satisfied since it is laid down by specific legal rules, which should in any case be complied with for operations using olive pomace where it is necessary that the by-products “meet product requirements and environmental quality is adequate to guarantee that their use does not cause emissions and environmental impacts that are qualitatively and quantitatively different from those authorized for the facility (or site) where they are intended to be used”).

From this standpoint none of the possible uses under study for olive pomace would pose particular problems and any issues that might arise would be easily overcome.

Regulation defined with art. 5. of the directive, which requires that there are no adverse environmental or human health impacts simply reiterates the fundamental objectives of community environmental policy established by the Treaty. Since all human activity has, in itself, an environmental impact it would be necessary to define the meaning of the term “adverse effect”. Considering the case law preceding the new concept, which undoubtedly had an influence, the correct meaning should be not to allow any use of by-products that may be more harmful to the environment or human health than using "raw" materials or products.

Since olive pomace is a natural substance, and considering its properties, it might be assumed that there is no adverse impact.

Such a conclusion, however, cannot be accurately made by legal theory which, nonetheless, can only provide a single and final procedural solution to the issue – for this requirement and all the others – through the EC Commission's enactment of a specific "measure" (as mentioned, art. 5 of the directive) aimed at providing legal rules to establish specific criteria to satisfy in order to make olive pomace considered as a by-product (and not as waste) for use at olive pomace refineries and for other uses described herein (also through amendments/supplements to the directive as non-essential items, as provided by art. 5).

Without such actions – and it would appear that the Commission is not geared towards undertaking such measures in a time soon – naturally as an example and not conclusive, with regard to other materials – faecal and vegetable matter deriving from agriculture; lithoid matter from crop fields; leftovers from food preparation – but in that case without having the absolute certainty that it is consistent with community legal rules, where only the Court of Justice would have the power to decide).

**... and concerning each of the possible uses mentioned.**

Concerning the possible uses of olive pomace, other than sales to olive pomace refineries, amply described above, there are a few considerations to add.

Using olive pomace as an additive in animal feed has already met with a favourable opinion, to the point where it is possible to classify it as a by-product, and the aforementioned interpretative communication issued by the EC Commission in Annex I, which lists some examples, expressly indicates by-products from the agro-food industry, including by-products from oleaginous grinding, used as raw materials in animal feed. As mentioned, this is not, however, sufficient to establish a general rule or presumption but depends on whether the conditions provided in art. 5 of the directive are actually met on a case-by-case basis.

Spreading over crop fields as fertilizer – if certain and if used in a way to meet the other conditions mentioned above (not if used as a landfill, whether clear or not) – is possible without the material being classified as waste (though it can objectively be considered as

one of the disposal acts – on the soil – covered by the rules on waste[15]), in any case based on what has already been ruled on that specific point (already prior to the new directive) by the Court of Justice for animal manure, which ruled that it could not be considered "discard"[16] (especially after the directive expressly defines by-product without any reference to its market value).

After all, spreading olive pomace (and runoff water deriving from the process) over crop fields as fertilizer is legally provided for in law no. 574/1996, implemented as a technical and "bureaucratic" detail through Ministry Decree of 6 July 2005 and regional regulatory/administrative acts;[17] these regulatory provisions were subsequently "confirmed" in the environmental code under art. 112.

Similarly (though without specific provisions), it should be possible to use olive pomace/by-product as an additive for backfilling, for instance, in quarries.

In addition, and on the basis of the same inclination, it should be possible to use olive pomace as biomass for generating energy (which is intended to be destroyed by incineration and so not considered as an object to "discard" by the producer if the latter ensures it is used without delay and without special preliminary treatment).

After all the Court of Justice clarified, as mentioned above, that the simple objective practice of processing a substance according to the type of waste disposal does not mean that the substance necessarily becomes considered as waste.

At this point it should be mentioned that biomass, according to those rules, can be considered as both waste or "non-waste", which further confirms how the destruction of a substance for the purpose of energy production does not in itself mean "discard" and so an indicator that it should be considered as waste.

Thus, if a substance deriving from a production process (in this case olive pomace) is intended for certain use as biomass in compliance with the conditions of art. 5 of directive 2008/98, it is not waste. This does not mean that other substances producers or holders have actually discarded (or intend to discard), considered as waste for that reason, cannot be used for producing energy from biomass (take, for instance, scrap from landscaping given to the operator performing urban public management services or collected from the latter).

Concerning this use (agricultural use and energy production from biomass) it would be important to make another consideration.

[15] See Annex I of directive 2008/98(D1).
[16] See the judgment mentioned in note 7.
[17] See, for instance, the resolution passed Liguria regional authorities on 27 July 2007, no. 848 (B. U. 22 August 2007, no. 34, part II) and the resolution passed by Tuscany regional authorities D.P.G.R. 8 September 2008, no. 46 (B. U. 17 September 2008, no. 29, part I).

- Art. 2.1(f) of directive 2008/98 provides that waste rules are in no way applied (a priori) to “non-hazardous agricultural or forestry material used in farming, forestry or for the production of energy from such biomass through processes or methods which do not harm the environment or endanger human health” One might be led to believe that olive pomace would be classified as a natural non-hazardous agricultural material and so it should fall under this rule. In that regard the term “agricultural material” is not specifically defined.

In community law there is a definition of “agricultural product”, contained in art. 32 of the Treaty (now art. 38) and laid down by regulation (EC) 3/2009, according to which agricultural products are «products of the soil ... and products of first-stage processing directly related to these products».

These agricultural products, defined in art. 32 continues, are listed in annex I of the Treaty and it includes, inter alia, oily fruits and olive oil, but also “residues and scrap from the food industry”, therefore, this also includes olive pomace.

This means that when referring to products art. 32 does not only allude to those that – using unclear terms from the waste sector – are deliberately produced as the primary aim of the agricultural process and first-stage processing, but also those that are an inevitable result even if not produced on purpose.

It is therefore necessary to establish what the relationship is between the rules related to agricultural policy, by which olive pomace is considered as an agricultural product, and the provisions of directive 2008/98, which under art. 2 clearly and resolutely exempt it from the rules on waste (and so also by-products), not exactly "agricultural products" pursuant to art. 32. of the Treaty, but "agricultural materials" not better defined by the same directive.

Considering the reverberation, one would be led to believe that the latter coincide with the former.

However, it does not seem correct to interpret these rules to that effect since the interpretation policies for community law are very different and they compel you first to consider the purpose of the rule and their actual effect.

From this standpoint, though similar in wording, the purposes of agricultural policy and environmental policy do not necessarily make the two concepts coincide.

Even more so, again strictly literal, but from a different point of view, it is not obvious nor is it clear whether olive pomace is an agricultural product since it does not actually derive directly from agriculture.

With this in mind, it is important to mention, and actually it is a determining factor, the fact that in the definition provided by directive 2008/98, art. 3.1(4), "biodegradable waste"

expressly covers also those products from facilities in the food industry. This does not mean that olive pomace is conclusively waste (biodegradable), but, if in a specific case where the conditions do not enable it to be considered as a by-product, it is not exempt (only because it is an agricultural "derivative") from the rules on waste. Basically, also art. 3.1(4) helps define (restrictively) the concept of "agricultural material" in order to outline the scope of the rules on waste and by-products. Olive pomace cannot be considered in this concept and so the substance cannot be considered completely and absolutely exempt from those rules, unlike, instead, those substances that can be classified as agricultural materials used in agriculture or used for the production of energy from biomass.

In any case, it should be reiterated that the considerations made above remain valid and so olive pomace (though not excluded from the scope of directive 2008/98) should be managed under the legal regime for by-products and not for waste (also agricultural use or for generating energy from biomass).

**Olive Pomace as Waste.**

On the other hand it is also possible to consider olive mill pomace to be considered as waste. In particular, this may happen if the mill operator is unable or does not want to arrange for certain use in one of the activities described above. In this case additional issues would arise on the application of rules regulating waste.

**2.2.2.1. Responsibility for Proper Recovery or Disposal.**

The mill operator, as a producer of waste, is (under certain conditions) responsible for proper management of such waste until recovery or disposal.
According to the general rules of directive 2008/98 (art. 15), laid down for member states and intended for implementation in detail:

(i) Member States shall take the necessary measures to ensure that any original waste producer or other holder (i.e. the mill) personally carries out the treatment of waste or has the treatment handled by a dealer or an establishment or undertaking which carries out waste treatment operations or arranged by a private or public waste collector in accordance with the rules of the directive on waste hierarchy and Protection of human health and the environment;

(ii) When the waste is transferred from the original producer or holder (i.e. mill) to one of the parties referred to in paragraph 1, the responsibility (also held by the producer or holder) for carrying out a complete recovery or disposal operation shall not be discharged as a general rule;

(iii) Member States and the accession negotiations state ( such a Croatia is ) may specify the conditions of responsibility and decide in which cases the original producer is to retain responsibility for the whole treatment chain (i.e. until it is no longer considered waste, after recovery or until disposal is complete).

Indeed, the producer's responsibility for special waste can be relieved according to special national regulations and laws through next possibilities:

1. by on-site disposal;
2. by assigning public waste management (which, however, for special waste is allowed only by stipulating an agreement between the producer of the waste and the operator of the public service at a fee that is decided by negotiation and not set by regulatory provisions);
3. by having the waste handled and disposed by an authorized party provided that the producer receives a copy of transport documents signed and dated by the recipient within three months after the waste is transferred (otherwise the producer shall file a report with the authorities if the term is not respected);
4. by having an authorized party handle prior blending or mixing, repackaging and storage if, in addition to meeting the condition set forth in paragraph (iii), the producer has also received the disposal certificate issued by the operator of the facility carrying out disposal.

**2.2.2.2. Recovery or Disposal Options – Best practice examples.**

In accordance with the framework described above the party operating the olive mill that produces "olive pomace waste" basically have four options:

1. On-site disposal, or on-site recovery, by installing a suitable system at the olive mill (which could also follow a simplified regime thereby not requiring the permits prescribed by art. 23 of directive 2008/98, pursuant to art. 24 thereafter, which provides for exemptions where the member state can lay down, in respect of each type of activity, general rules specifying the types and quantities of waste that may be covered by an exemption, and the method of treatment to be used in accordance with waste hierarchy and in the case of on-site disposal operations those rules should consider best available techniques; for Italy see Ministry Decree of 5 February 1998, which lays down specific rules for recovery of olive pomace waste);

2. have the waste managed by public municipal waste management services under a specific agreement;

3. deliver the waste, by means of an authorized waste collector, to authorized recovery or disposal installations (with the precautions mentioned above to avoid shared responsibility if the waste collector in question does not deliver the waste to the intended installation);

4. deliver the waste, by means of an authorized waste collector, to a party authorized to handle prior blending or mixing, repackaging and storage for subsequent transfer to authorized recovery or disposal installations (also in this case with the precautions mentioned above to avoid shared responsibility not only if the waste

collector in question does not deliver the waste to the intended installation, but also if such party does not fulfil legal obligations).

The situation would be simplified if the “olive pomace waste” were treated as municipal waste, at least for smaller olive mills.
Indeed, in this case the producer would only need to deliver it to a municipal waste service without needing to stipulate an agreement and pay only the waste management tax or fees.
In any case, although this would not seem to correspond to a specific community limit, national lawmakers, even after giving municipalities the power to determine which waste can be treated as municipal waste (under qualitative and quantitative criteria established by the State), still excluded the possibility to provide such treatment for “waste produced in production areas, including storage facilities for raw materials and finished products, except for waste produced in offices, cafeterias, sales outlets, cafes and facilities serving workers or open to the public"; which, as is, prevents a priori treating olive pomace as municipal waste since it is produced in a production area.

Concerning this, it would seem reasonable to envisage an amendment to the provisions (state) in order to enable it to be treated as municipal waste when produced by smaller olive mills operated by artisans, after conducting an economic study for that purpose (to compare the cost of having the special waste handled by municipal waste services and the cost in terms of taxes and fees for regular municipal waste disposal).

This would also enable the waste management service receiving the olive pomace send it to a recovery facility or transfer it for producing energy from biomass thereby meeting the objectives of waste hierarchy and provide further incentives to produce energy from renewable sources.

**2.2.2.3. Cost of Managing Olive Pomace as Waste.**

Possible application of the rules on waste to olive pomace (for the reasons mentioned above) would result in considerable costs which would be difficult for olive mills to sustain, especially for smaller mills.

For instance, in addition to the costs for transport and disposal/recovery, there are also the costs for complying with the rules regulating documentation for producers of special waste. These costs do not always depend on community rules regulating waste since they often bear the result of national decisions made during

Although it would seem unlikely to obtain specific legal amendments just for olive mills (also due to issues relating to the principles of equality and reasonableness), it is clear that the matter cannot and should not be ignored by national lawmakers. Take, for instance, the obligation to transport waste with special vehicles equipped for that purpose. For a natural, non-hazardous material such as olive pomace this is without a doubt an exaggeration and without any sense.

## 3. Olive Pomace as Biomass for Energy Production in Terms of Regulatory Provisions for the Sector.

As mentioned, using olive pomace as biomass deserves special notice, since in this case the rules regulating energy should also be taken into consideration.

The promotion of energy from renewable sources is already fostered in community law with directive 2001/77 and is now pursued above all in the new directive 2009/28.

**Look at 2001/77 EU on link:**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:283:0033:0033:EN:PDF

Both use the same definition of biomass: "the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries, … as well as the biodegradable fraction of industrial and municipal waste"(art. 2(e) of directive 2009/28).

If biomass constituting waste (i.e. the producer discards or intends to discard) is legally material, nonetheless the plant where combustion takes place for generating energy is not subject to these provisions (permits and, in general, regulatory) laid down specifically for waste incineration facilities (EC directive 2000/76, which after indicating its scope with reference to waste incineration and co-incineration facilities, excludes (under art. 2) facilities that treat only "vegetal waste deriving from food processing industries, if the heat is recovered.

**Look at 2000/76 EU on link:**
http://www.central2013.eu/fileadmin/user_upload/Downloads/Document_Centre/OP_Resources/Incineration_Directive_2000_76.pdf

It is still necessary to comply with other general rules laid down by directive 2008/98 (formerly 2006/12) providing the obligation to obtain permits for treating waste (art. 23) without prejudice to the possibility (art. 24) of member states to introduce exemptions - and so a simplified regime requiring only registration with a set of general technical rules - for facilities that arrange for disposal of their own non-hazardous waste at the place of production and recovery of waste. The latter also includes fuel for energy production pursuant to annex II.

**Look at 2006/12 EU on link:**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:114:0009:0009:EN:PDF

The simplified regime can be used in Italy under the technical conditions provided by Ministry Decree of 5 February 2008, also for vegetal scrap originating from the oil industry (annex 2, subannex 1(3)).

a) If, instead, olive pomace is legally material as biomass not constituting waste, but as a by-product intended for use as fuel (complying with all the conditions mentioned above), the facility is not subject to the rules on waste, but is subject to those regulating energy production. In this context directive 2001/77, drafted to favour energy production from renewable sources, already required member states to reduce any legal obstacles in order to increase the production of energy from renewable sources and rationalize and speed up procedures. In Italy, legislative decree no. 387/2003 was passed (as implementation), which, inter alias, laid down a single regime for issuing permits (for plants) following a simplified procedure; the biomass plants that are not required to obtain special permits are expressly exempt
b) The new directive 28/2009[18] – still awaiting transposition – strengthens the community action to foster energy from renewable sources by providing specific objectives that each member state should reach for using such energy (art. 3 and annex I), as well as the possibility for support measures, such as investment grants and tax breaks or exemptions (articles 2, (k), and (3), with additional detailed rules on the characteristics of procedures for obtaining permits to ensure simplification and acceleration, objectivity, transparency and proportion (art. 13.1).

**Pogledati 2009/28 Eu na linku:**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF

In this context the directive also prescribes the introduction of "simplified and less burdensome authorization procedures, including through simple notification if allowed by the applicable regulatory framework, are established for smaller projects and for decentralized devices for producing energy from renewable sources, where appropriate" (art. 13.1(f)).

This does not mean that using biomass to produce energy should mean not complying with other general provisions on environmental protection, especially with regards to air pollution. This holds true, for instance, in the case of Republic of Croatia, for rules that define for that purpose the product properties of fuels that can be used by the various types of combustion plants and the conditions to comply with in the process, expressly allowing for biomass as one of the fuels and, among these, both "vegetal material produced from mechanical processing of agricultural products", such as olive mill pomace, and also olive pomace chemically processed by olive pomace refineries. It is clear that the legal framework on biomass, including olive pomace, and its use to produce energy is abundant and favourable.

The space for implementation at national level, both in terms of support measures and in terms of simplifying "bureaucratic" issues, is clear and should be exploited accordingly, also when transposing directive 2009/28.

[18] See B. Pozzo, *Le politiche comunitarie in campo energetico*, in Riv. Giur. Amb., 2009, 873 and W. Lenert – J. Vollprecht, *Neue Impulse von Europa: Die Erneubare-Energien-Richtlinie der EU*, in ZUR, 2009, 307.

In addition, there is already a provision, in art. 5 of legislative decree no. 387/2003, for a commission of experts with a series of duties, including the power to specify the technical, economic, legal and organizational conditions for energy recovery from a number of substances (attributable to biomass) such as food scraps from the agro-food industry. Without actual legislative power, the commission could in any case provide a valuable contribution to interpreting rules, also with respect to technical features relating to the issue at hand.

**All EU directives and law decisions according through this problem it could be founded in this link:** http://ec.europa.eu/competition/index_en.html

Furthermore, since many olive mills, due to their size, would be unable to power an entire biomass facility on their own and there are no valid reasons that would exclude the latter from being considered as a local public service («activities whose object is the production of goods and activities for social purposes and to promote the economic and civil development of local communities», since they can provide services such as district heating and supply a part of the electricity demand, for instance, for public lighting, and since they support local producers of biomass in addition to the fact that they have a beneficial impact on employment and the environment.

It would be recommendable to introduce laws that expressly facilitate and, at the same time, provide incentives (e.g. economic incentives) for municipalities to build such installations (especially small ones) in the scope of their local public services, also based on regional agreements with olive mills and with other parties that would significantly contribute to providing biomass for energy production.

Moreover, if the facilities were built by municipalities or in the scope of their local public services:

- it would be easier to subsidize the facilities, in accordance with community law;
- there would likely be less local opposition;
- the “producers” of biomass would not need to deal with, directly and under their own responsibility, the complex procedures and authorizations needed to build and operate the facilities.

## 4. Conclusion: Legal Recommendations.

In conclusion, and in brief, the study has led to the following legal recommendations to facilitate the management of olive mill pomace and to provide incentives for producing energy from biomass starting from this (by-) product:

1. The EC Commission should provide technical specifications, pursuant to art. 5 of directive 2008/98, on the conditions for using olive pomace as a by-product regardless of their economic value and regardless of the possible need of a drying

phase and/or pot removal. In the meantime this could also be provided for in national law (albeit with less space to work in and a lower degree of "reliability");

2. National law (if still aren't defined than should be) should be brought in line with this new concept of by-product namely connected with the part that still provides for the economic value of by-products as a basic requirement. However, without providing regimes that can make operations particularly burdensome and/or complex, or delay application, which is the risk of "traceability" during transposition en route, with regards to residues from agricultural processing, without prejudice to the fact that olive pomace does not fall under this category since it is a residue from the agro-food industry.

3. if olive pomace is considered as waste national law should allow it to be treated as municipal waste when produced by smaller olive mills;

4. Furthermore, the prohibition against transporting waste with vehicles that are not specially equipped for that purpose should be dropped when the materials to be transported are natural and non-hazardous;

5. More favourable national laws should be introduced for obtaining permits for facilities producing energy from biomass, especially when they are small;

6. National law should expressly provide that, in the absence of adequate private initiative, municipalities are able to build such facilities (or have them built) and operate them (at least during the start-up phase) within the scope of their local public services and with corresponding forms. Economic incentives should also be provided to ensure this actually happens (or at least the regions can be oriented to that effect, in collaboration with local "pilot" bodies within the scope of regional plans providing incentives for energy from renewable sources).