RESTRAINING SYSTEMS FOR BOVINE ANIMALS SLAUGHTERED WITHOUT STUNNING

WELFARE AND SOCIO-ECONOMIC IMPLICATIONS

EXECUTIVE SUMMARY & KEY MESSAGES

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SCOPE AND BACKGROUND

The study exclusively refers to the slaughter without stunning of bovine animals. Conclusions are limited to this scope. The study does not question the legitimacy of slaughter without stunning for religious reasons.

In the European Union (EU), before being slaughtered, bovine animals are usually restrained in the upright position and stunned by a penetrating captive bolt. However, the EU legislation[1] **derogates the stunning of animals where the method of slaughter is prescribed by religious rite** (Jewish and Muslim methods of slaughter).

For that purpose, specific restraining systems have been designed that physically restrain **the animal in the upright position** (upright system) or **rotate the animal either upside down or on its side** in order to facilitate the cutting by the slaughterman (**rotating system**).

During the adoption of the new EU legislation on the protection of animals at the time of killing, in 2009, there was a debate on the welfare aspects of rotating restraining systems. As a result, the regulation requires the Commission to submit to the European Parliament and the Council **a report on systems restraining bovine animals** by inversion or any unnatural position.

The purpose of this study, which took place between 2013 and 2014, was to collect relevant scientific and socioeconomic data and information for the preparation of the above mentioned report.

The study provides an overview of the current situation of restraining practices in the EU, an assessment of animal welfare advantages and disadvantages of the different systems and an analysis of the socioeconomic implications of the use of the different systems, including their religious acceptability. Scenarios for implementing technical recommendations are proposed and compared with the baseline (no EU action).

CURRENT RESTRAINING PRACTICES

Data were obtained from **the competent authorities of 23 Member States** and from **116 slaughterhouses in six selected Member States** (Belgium, France, Italy, The Netherlands, The United Kingdom, and Spain).

No more than 8% of bovine animals were slaughtered without stunning in the EU in 2012, most of them (84%) in only **four Member States** (France, The Netherlands, Spain and United Kingdom) involving approximately 400 slaughterhouses.

Almost **80% of these animals were slaughtered in rotating** systems and the remaining 20% in upright ones. The United Kingdom prohibits the **use of the rotating systems**. Altogether, it

[1] Regulation (EC) No 1099/2009 *on the protection of animals at the time of killing* (OJ L 303, 18.11.2009, p. 1).

was estimated that approximately 60% of the bovine animals were slaughtered without stunning in inverted position and 15% in lateral position.

More than 30 manufacturers/models have been identified for the restraint of cattle for slaughter without stunning. However, no more than **seven manufacturers of rotating restraint devices are present in more than half of the slaughterhouses**. **This contrasts with a large diversity of the origin** of the equipment, mainly from local manufacturers **in other slaughterhouses**. **Overall, 67% of the restraint devices were less than 10 years old.**

Business operators interviewed primarily choose their restraining system for slaughter without stunning to meet the religious expectations of their customers. **Meeting with religious representatives were organised in five Member States** and both representatives from Muslim and Jewish communities **confirmed that inverted or lateral position is their preferred position**. Consequently, during the last 30 years, except in the United Kingdom where inverted systems were banned, most of the slaughterhouses in the EU have invested in rotating system and have optimised their procedure accordingly.

However, upright devices are cheaper than rotating ones both in terms of investments and operating costs **but these costs are low compared to the costs of the overall slaughter line**. These costs do not play a significant role for the competitiveness of business operators compared to the labour costs, the line speed or the number of animal slaughtered per year.

Little information was available on trade of halal or kosher bovine meat within the EU or with third countries. Exports to third countries (Israel or predominantly Muslim countries) over the last years were very low and variable depending on political agreements (e.g. Turkey). Intra-EU trade does not appear to be very significant and most of the meat is sold locally.

Where using modern restraining devices, **work safety** is more linked to the layout of the bleeding and hoisting area rather than the type of restraining device itself. Releasing and hoisting the animals represent a major risk for the safety of workers and this applies to both restraining systems.

WELFARE OF ANIMALS AND RESTRAINING PRACTICES

Based on literature review, both **rotating and upright restraint systems have strengths and weaknesses** in terms of animal welfare. Specific concerns related to rotating systems are delays in operation between entry and slaughter, and pain and distress from being restrained in an unnatural position. Upright restraints can cause pain and distress to the animal if excessive pressure is applied on the body or the head during restraint, and more skill is required to perform a successful neck cut.

In addition to the literature review, the study performed a comprehensive animal welfare assessment (19 variables observed for each animal) in various commercial slaughterhouses. The evaluation was carried out on **1113 bovine animals (adults and calves)** in six Member States collecting data from a diversity of restraining devices and practices (22 situations observed). During the assessment, the behaviour of animals and the operating practices were observed from the entry of the animal in the restraining device to the post-bleeding period.

From these observations, **no conclusive findings could be established in favour of one of the positions (upright, lateral, inverted) at the time of bleeding**. Most variables observed were within the same range in the different positions. **Most of the deficiencies observed** could be explained by: **inefficient operating procedures,** poor skills of operators, improper layout of the bleeding area or by the bad **design of the restraint devices**. This applied to both restraining systems, rotating and upright.

Based on these observations and experts' opinions, the study proposes **recommendations to improve the welfare of animals and workers' safety**. Quantitative objectives based on best practices are provided to monitor the efficiency of their procedures (section 5 of the study).

SCENARIOS FOR FUTURE EU POLICIES

The study explored three options for possible future EU initiative:
(1) no EU action (baseline),
(2) non-binding measures and,
(3) minimum legal requirements for restraining devices.

Regulation (EC) No 1099/2009 applies from January 2013 and its implementation by the European meat industry is still ongoing on several aspects in particular the development of standard operating procedures.

In the next 15 years, the number of bovine animals slaughtered without stunning is expected to slightly increase in the EU due to the growth of the Muslim population while the number of slaughterhouses is expected to decrease. Based on previous trends, we expect that 300 slaughterhouses will perform slaughter without stunning at the end of this period. This will increase the number of animals slaughtered per slaughterhouse and slightly decrease the slaughter costs. No major change is expected in terms of restraining systems used or in trade of such meat (intra-EU or with third countries).

Without any new EU initiative, we still expect **an improvement of animal welfare and work safety for the slaughter of bovine animals without stunning**. This is mainly due to the implementation of the new regulation and, particularly, the proactive strategy developed in France (guidelines and training) where the majority (60%) of the slaughter of bovine animals without stunning of the EU is concentrated (based on 2012 estimation).

Compared to this baseline, the option of "**non-binding support measures" would have clear positive impacts on animal welfare** and work safety, especially in countries other than France (where approximately **one third of the animals** slaughtered without stunning in the EU) without major negative effect on costs, religious acceptability or trade. This scenario is based on the development of EU guidelines for improved procedures, additional training, promotion of additional prerequisites and technical/pilot studies. This voluntary approach involves a cost for the EU budget and the process will not lead to a full harmonisation since it is likely that some operators will ignore voluntary measures.

The option of setting up **minimum legal requirements for restraint device** has the advantage of generating almost no costs or investments (only for slaughterhouses not meeting the minimum requirements). However, our observations have showed that, in terms of quantitative effect, improvements on animal welfare and work safety largely depend on the progress realised on operating procedures and skills of the personnel rather than by changing or upgrading pieces of equipment. Therefore, this scenario will have much less positive impact on animal welfare and work safety than the previous option since few slaughterhouses are likely to be concerned (expected to account for less than 30).

KEY MESSAGES

The EU legislation[2] derogates **the stunning of animals where the method of slaughter is prescribed by religious rite** (Jewish and Muslim methods of slaughter), provided that it takes place in a slaughterhouse. For that purpose, **specific restraining systems have been designed for bovine animals, which put them either into upright position (upright systems) or into inverted or lateral position (rotating systems).** The Regulation requires the Commission to submit to the European Parliament and the Council **a report on systems restraining bovine animals** by inversion or any unnatural position.

The study, which took place between 2013 and 2014, was to collect the relevant information for the preparation of the future Commission report. It provides an overview of the current situation of restraining practices in the EU, an assessment of animal welfare advantages and disadvantages of the different systems and an analysis of the socio-economic implications of the use of the different systems, including their religious acceptability. Scenarios for future EU policy options are proposed and compared with the baseline (no EU action).

In 2012, no more than 8 % of the bovine animals were slaughtered without stunning in the EU, with the majority (84%) in only four Member States (France, The Netherlands, Spain and United Kingdom), involving approximately 400 slaughterhouses.

Almost 80% of the bovine animals were slaughtered without stunning by using a rotating restraint device and inverted position appeared to be the most frequent restraint practice (approximately 60 %). A large diversity of manufacturers/models were in use with a sharp contrast between the large market share of a few manufacturers and a large diversity of local manufacturers for others. Overall, 67 % of the devices were less than 10 years old.

Upright systems are less costly. However, costs differences between the two systems do not affect significantly the competitiveness of the slaughterhouses. Where using modern restraining devices, work safety was more linked to the layout of the bleeding and hoisting area rather than the type of restraining device. For representatives of both **Jewish and Muslim communities interviewed, inverted position was the preferred restraining practice** compared to the upright position. Consequently, during the last 30 years, except in the United Kingdom where inverted systems were banned, most of the slaughterhouses in the EU have invested in rotating systems.

The welfare of 1113 bovine animals was systematically assessed in 22 different restraint situations to take into account the diversity of devices and practices in the EU. For each animal, 19 variables were observed and most of them were **in the same range of variation** in the different restraining positions (upright, lateral and inverted). Bad welfare situations were mainly explained by poor operating procedures and, in some specific cases, by poor design of the devices**, whatever the position used.**

Based on these observations, the study proposes **recommendations for good practices and monitoring indicators** for process quality improvement.

[2] Regulation (EC) No 1099/2009 *on the protection of animals at the time of killing*

The study also explored three alternatives scenarios for future EU actions in this area.

The EU legislation on slaughter only **applies from January 2013**. Its implementation was still an ongoing process at the time of this study. Even without new EU action, it is **expected that the development of standard operating procedures and training, foreseen by the new legislation, will improve the animal situation in the next 15 years**. This is particularly predicted in France where the meat industry has taken a pro-active attitude. In addition, France concentrated in 2012 more than half of the bovine animals slaughtered without stunning of the EU.

Compared to this previous scenario, "**non-binding support measures"** would have **more positive impacts on animal welfare** and work safety than an option of "**minimum requirements for restraint device**". This implies the development of EU guidelines for improved procedures, additional training, promotion of additional prerequisites and technical/pilot studies.