



BIOTERRORISM IN THE GLOBAL ERA*

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М. Анхелес Куадрадо Руїз. Біотероризм в еру глобалізації

Стаття стосується нової парадигми такого явища, як біотероризм в умовах глобалізованого світу.

Відправною точкою авторка вважає події 11.09.2001. У статті аналізується міжнародне законодавство та законодавство ЄС, виділяються ключові правові механізми регулювання біобезпеки в світі та ролі міжнародних організацій. Окремо аналізується Зелена Книга ЄС та національне законодавство країн ЄС та, зокрема, Іспанії. Авторкою показано синергетичний зв'язок біотероризму інших сфер людського життя: від виробництва біологічної зброї до мистецтва, також розкривається особливості складу кримінальних злочинів в сфері біобезпеки.

Ключові слова: біотероризм, кримінальне право, злочин, біологічні агенти, права людини

1. Introduction

While the legislative implementation of biosafety measures has a long history following the development of biosciences and the growing understanding of risks linked with human, animal, and plant pathogens as well as toxins, the importance of biosecurity aspects is the appearance of new threats and challenges, in 2001.

Did the world change on 11 September 2001?

The terrorist attacks on 11 September 2001 which led to the Twin Towers collapse where nearly 3,000 people were killed shook the individual and collective conscience and modified diplomatic relations

and political systems. I believe solidarity as a firm and preserving commitment for the common good¹ has become stronger between every individual and every country. A fundamental conclusion from these attacks in New York and Washington were that they have set a new stage in international cooperation and fight against terrorism. After the Twin Towers collapse, another event shook and created a dangerous, panic-like and insecure situation:

'Once gone the initial shock the planet felt after watching how two identical skyscrapers fell in an hour, the world was frightened of a possible attack with chemical or bacteriological weapons². In fact,

* Стаття друкується в авторській редакції

¹ See CUADRADO RUIZ, M^a A., *Las armas biológicas. Aspectos legales* (Biological Weapons. Legal Aspects), Granada (Spain) 2011; *Sollicitudo rei socialis*, 30.XII.87, no. 38; CUADRADO RUIZ, M^a A., *La responsabilidad por omisión de los deberes del empresario* (The responsibility for omission of the employer's duties), Barcelona (Spain) 1998, p. 24, no. 6;

² CUADRADO RUIZ, M^a A., *Las armas biológicas. Aspectos legales* (Biological Weapons. Legal Aspects), Granada (Spain) 2011: "La menace bioterroriste" (Bioterrorist threat): one dead person, seven sick people and thirty people contaminated in four different North American geographical areas: Washington, New York, New Jersey and Boca Raton (Florida). The presence of the virus was also confirmed in Argentina and Kenya through postal mailings from the US, *Le Monde* (French newspaper), 21 October 2001, p. 7. 'Primer caso de ántrax pulmonary en Nueva York' (First case of pulmonary anthrax in New York) *El Mundo* (Spanish weekly newspaper), 31 October 2001, p. 12.



many think that this is the real war threat in the 21st century. After the anthrax cases which appeared in Florida (U.S.A.), the truth is that millions of people have been petrified by the thought of breathing, eating, drinking or coming into contact with deadly microorganisms (...)

In Spain, experts (chemists, microbiologists, doctors...) were called into make a multidisciplinary advisory committee which establishes the way to act in such cases. Even all the Spanish Autonomous Communities received instructions to be extremely vigilant on epidemics with the objective to detect, as soon as possible, the beginning of suspect cases and stop them in advance (...)³.

The Anthrax cases which were detected in Florida alarmed and provoked panic not only in the USA but worldwide. It is obvious that nowadays the use of biological weapons is real, and according to the experts it is easy to carry out. Although it is not relatively simple to acquire the material and produce biological weapons which constitutes an effective means to terrorize the population.

After the discoveries of anthrax cases in the States, 'the bioterrorist threat', 'bioterrorist attack', 'biological terrorism which sows national alert' or 'the outbreak of bioterrorism' are some of the terms which have appeared around them. These terms filled the newspapers and received attention from other social media. These were undoubtedly terms of fear, panic and anxiety in view of an outbreak of anthrax or other diseases. The feelings of anxiety, insecurity and uncer-

tainty gained ground even though cases with a mortal outcome had not been very high.

2. The Biological Weapons Convention, (BWC), Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction.

2.1. LEGAL Implementation

As a result of prolonged efforts by the international community to establish a new instrument that would supplement the 1925 Geneva Protocol, the Biological Weapons Convention (BWC)⁴, the first multilateral disarmament treaty banning the production and use of an entire category of weapons, was opened for signature on 10 April 1972. The BWC entered into force on 26 March 1975. However, the absence of any formal verification regime to monitor compliance has limited the effectiveness of the Convention.

The Biological Weapons Convention firmly prohibits through its fifteen articles:

Article I, under any circumstances from developing, producing, stockpiling or otherwise acquiring or retaining:

1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;

2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Article I thus establishes a broad definition of BW on the basis of the general

³ CUADRADO RUIZ, M^a A., "El delito de producción de armas biológicas", RGDP, n°7, mayo 2007. See also *Las armas biológicas. Aspectos legales* (Biological Weapons. Legal Aspects), Granada (Spain) 2011: Press release from the Organización Médica Colegial (the Spanish Medical Colleges Organization), "Los médicos españoles están perfectamente cualificados para tratar cualquier tipo de patología relacionada con el carbunco", in Rev. Del Consejo General de Colegios Médicos de España (Spanish General Medical Council), no. 77, October 2001, p. 7: "The Spanish Medical Colleges Organization has stated that Spanish doctors are perfectly qualified to diagnose and treat any type of pathology related to anthrax since it is not an unknown disease to them" and call the population to be calm in facing what they consider an exaggerated alarm, though, understandable in the current moment. They recommend the population to only take medicine and products which had been prescribed by physicians and they warn that last year, in Spain, 35 cases of anthrax were detected, but there are no cases nowadays.

⁴ CUADRADO RUIZ, M^a A., "La Convención de armas biológicas frente a nuevas amenazas", en *Las armas biológicas. Aspectos legales*, Granada, 2011. See also CUADRADO RUIZ/ PEÑA FREIRE *Bioseguridad, Derecho y Defensa*, Granada, 2013, p. 103-129.



purpose criterion and – in prohibiting development, production, stockpiling and acquisition – seeks to prevent States Parties from getting hold of BW. It outlaws vertical proliferation

Article II clearly states that:

Each State Party to this Convention undertakes to destroy, or to divert to peaceful purposes, as soon as possible but not later than nine months after entry into force of the Convention, all agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, which are in its possession or under its jurisdiction or control. In implementing the provisions of this article all necessary safety precautions shall be observed to protect populations and the environment.

Article III expands the ban on BW in addressing any active role that States Parties may take in the horizontal proliferation of BW: Firstly, it proscribes assistance, encouragement and inducement of other States, groups of States and international organizations in activities prohibited under Article I. Secondly; it bans direct and indirect transfers of prohibited items “to any recipient whatsoever”. This covers international and domestic transfers of substances and includes non-State recipients.

The situation of national implementation becomes even more complex. Article III confronts States with several issues of which three seem to be of major importance. Firstly, the use of biological agents and toxins is justified for prophylactic, protective and other peaceful purposes. Handling and transfer of agents and toxins is day today business for scientific, diagnostic and commercial purposes. The obligation under Article III in combination with Article I requires States to execute some type of control to ensure that transfers of material fulfill the criterion of justified use. Secondly, Article I does

not specify distinctive agents, toxins, weapons or means of delivery, but instead prohibits activities relating to such materials. For this reason it is at the discretion of States Parties to specify relevant items. Thirdly, in the context of international transfers, even without possessing any agents and toxins of concern within a State’s territory, a State may need to implement legislation and measures in order to meet the obligations under Article III not to transfer “indirectly”, and “not in any way to assist” illegal transport or transshipment through its national territory as well as illegal brokering.

Article IV may be considered as the core provision relating to national implementation. It stipulates that each State Party shall “take any necessary measures to prohibit and prevent” prohibited activities within its territory, “under its jurisdiction or under its control anywhere”. A close reading of Article IV demonstrates that it includes a significant obligation on States Parties. Since it does not specify the actor, the recipient or the beneficiary of any of the prohibited activities, national legislation must be constructed in such a way as to effectively cover all potential actors involved in such BW activities. Article IV is not simply an obligation of conduct but amounts to an obligation of result. It will not be sufficient to introduce mere prohibitions into national law to meet the obligations included in Article IV since States Parties have to take measures “to prohibit and prevent”. One may also refer to the need to adopt the “necessary measures”.

Article IV introduces a broad concept of jurisdiction and control. It is not limited to the territory of States Parties but includes de jure jurisdiction and de facto control relying upon genuine links other than territorial sovereignty. The issue of jurisdiction explicitly referred to in Arti-

⁵ CUADRADO RUIZ, M^a A., “Tecnología y material biológico de doble uso: regulación española y europea” en *Las Armas biológicas. Aspectos legales*, Granada, 2011, p. 77.

⁶ See below Council Regulation (EC) No 428/2009.



ВИКЛИКИ СУЧАСНОСТІ

cle IV which speaks of “the territory of such State ... its jurisdiction or ... its control anywhere”. This formula has been introduced in various other arms control and disarmament agreements and can be considered a standard formula today. While this seems to be promising, there still is no consensus as to the interpretation of such a clause. This lack of consensus is due to the fact that there is no agreement in international law on the extent to which any particular State may adopt extraterritorial legislation. However, in extending the responsibility of States Parties beyond their territory, Article IV not only provides a basis for extraterritorial jurisdiction but even obliges States Parties to extend their implementing legislation to the extent of their “jurisdiction ... (and) control”. Notwithstanding the lack of international consensus on extraterritorial legislation, an increasing number of States Parties follow the interpretation that Article IV provides a basis for extraterritorial legislation

Apart from these elements illustrating the strictness of the obligation, two other elements included in Article IV give some leeway to States Parties when implementing the Convention. Firstly, Article IV pays respect to the national legal order (“in accordance with its constitutional processes”) of each State Party. Secondly, “necessary measures” can also be read as an attempt not to overburden States Parties, introducing an element of proportionality into national implementation”.

2.2. ADMINISTRATIVE Enforcement.

States try to solve the problems mentioned by both legislative regulations and administrative enforcement.

The discussion of administrative enforcement in the context of national implementation opens a practical dimension. It leads to a debate about how to carry out measures “on the ground”. Two issues are of concern in this respect: the determination of relevant authorities and the extent of political and administrative discretion.

The BTWC does not include a provision on national authorities. Without any explicit provision on either a national authority or other authorities in charge of the administrative enforcement of implementing laws and regulations, the only relevant point of reference is Article IV. When read as an obligation of result and bearing in mind the need to take “necessary measures”, it is quite clear that legislation alone is not sufficient to meet the requirements of the Convention. Effective implementation necessitates competent administrative enforcement.

3. United Nations Security Council Resolution 1540 and the United Nations Global Counter-Terrorism Strategy.

Adopted on 28 April 2004, it decides that all States shall take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery, including by establishing appropriate controls over related materials and to this end shall, among others, establish transit and brokering controls. Related materials are materials, equipment and technology covered by relevant multilateral treaties and arrangements, or included on national control lists, which could be used for the design, development, production or use of nuclear, chemical and biological weapons and their means of delivery. These Committees are supported in their work by different entities; whereas the Counter-Terrorism Committee has its Executive Directorate (CTED) to carry out its policy decisions and conduct expert assessments of Member States, the 1267 Committee has its own monitoring Team. The General Assembly unanimously adopted the United Nations Global Counter-Terrorism Strategy at its fifth review conference from June 30 to July 1 of 2016. The Assembly also welcomed the Secretary-General’s Plan of Action to Prevent Violent Extremism, called on Member States to implement relevant recommendations of the plan with the support of the United Nations.



4. Practices Standards and Harmonisation in Europe

4.1. EU Green Paper on Bio-preparedness

In July 2007 the Commission of the European Union published a Green Paper on Biopreparedness. The Green Paper intends to stimulate a debate and launch a process of consultation at European level on how to reduce biological risks, and to enhance preparedness and response (“bio-preparedness”). The paper addresses existing EU legislation, decisions and recommendations to improve safety and security; it also raises questions how and by whom biosecurity and response could be improved in EU Member States. In February 2008 the Commission established a CBRN Task Force. The final report of the Task Force was published in January 2009 with 264 separate recommendations. On 24th June 2009 the Commission adopted an Action plan defining the new EU CBRN policy.

In parallel, the General Secretariat of the Council and the Commission Services started an update of the EU CBRN Inventory of 2002 and of the Bio Inventory of 2007. The inventories collate all directives, regulations, decisions, recommendations and other measures with regard to biosafety and biosecurity issued by the EU Commission and/or the EU Parliament.

Based on the comments to the Green Paper provided by more than 80 governmental and non-governmental organizations, the results of the ongoing discussions of the groups of experts, and the updated CBRN Inventory, the Commission and the Council developed a policy paper to improve the Community’s preparedness.

The Action Plan is not a legal instrument; however immediate legal and budgetary consequences for the EU could derive from possible legal instruments im-

plementing the Action Plan. The Action Plan sets out three main areas of CBRN security work:

- 1) Prevention: ensuring that unauthorized access to CBRN materials is as difficult as possible
- 2) Detection: having the capability to detect CBRN materials in order to prevent or respond to CBRN incidents
- 3) Preparedness and response: being able to efficiently respond to incidents involving CBRN materials and recover from them as quickly as possible.

This policy paper is the basis for further steps of the EU Member States to improve biosecurity.

4.2. Council Regulation (EC) No 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

The Heads of State or Government of the EU adopted in June 2003 an Action Plan on Non-Proliferation of Weapons of Mass Destruction (Thessaloniki Action Plan). This Action Plan was complemented by the EU Strategy against proliferation of Weapons of Mass Destruction adopted by the European Council on 12 December 2003 (EU WMD Strategy). According to Chapter III of this Strategy, the European Union must make use of all its instruments to prevent, deter, halt, and if possible eliminate proliferation programmes that cause concern at global level. Subparagraph 30.A (4) of that Chapter specifically refers to strengthening export control policies and practices.

This Regulation No 428/2009 includes items which only pass through the territory of the Community⁷, that is, those items which are not assigned a customs-approved treatment or use other than the external transit procedure or which are merely placed in a free zone or free warehouse and where no record of

⁷ CUADRADO RUIZ, M^a A., “Tecnología y material biológico de doble uso: regulación española y europea” en *Las Armas biológicas. Aspectos legales*, Granada, 2011, p. 77.



them has to be kept in an approved stock record. Accordingly, a possibility for Member States' authorities to prohibit on a case-by-case basis the transit of non-Community dual-use items should be established, where they have reasonable grounds for suspecting from intelligence or other sources that the items are or may be intended in their entirety or in part for proliferation of weapons of mass destruction or of their means of delivery.

Controls should also be introduced on the provision of brokering services when the broker has been informed by competent national authorities or is aware that such provision might lead to production or delivery of weapons of mass destruction in a third country.

It is desirable to achieve a uniform and consistent application of controls throughout the EU in order to promote EU and international security and to provide a level playing field for EU exporters. It is therefore appropriate, in accordance with the recommendations of the Thessaloniki Action Plan and the calls of the EU WMD Strategy, to broaden the scope of consultation between Member States prior to granting an export authorization.

Among the benefits of this approach would be, for example, an assurance that a Member State's essential security interests would not be threatened by an export from another Member State. Greater convergence of conditions implementing national controls on dual-use items not listed in this Regulation, and harmonization of the conditions of use of the different types of authorizations that may be granted under this Regulation No 428/2009 would bring about more uniform and consistent application of controls. Improving the definition of intangible transfers of technology, to include making available controlled technology to persons located outside the EU,

would assist the effort to promote security as would further alignment of the modalities for exchanging sensitive information among Member States with those of the international export control regimes, in particular by providing for the possibility of establishing a secure electronic system for sharing information among Member States.

Each Member State should determine effective, proportionate and dissuasive penalties applicable in the event of breach of the provisions of this Regulation, **No 428/2009** that sets up a Community regime for the control of exports, transfer, brokering and transit of dual-use items⁸.

The establishment of licensing systems as part of the implementation process is fully in line with the BW Convention, potentially fulfilling the obligation to take measures to both prohibit and prevent the proliferation of biological weapons.

5. Criminal Law

All States Parties to the Biological and Toxin Weapons Convention (BTWC) need to ensure that their obligations under Article I not to develop, produce, stockpile, otherwise acquire or retain any of the agents, toxins, weapons, equipment or means of delivery specified in Article I are transposed into their national legal order so that these obligations apply to any natural and legal persons on the territory of the State Party to the BTWC or under its control.

The BTWC does not include an explicit obligation to adopt penal legislation. However, the previously discussed interpretation of Article IV BTWC at least suggests that penal provisions form part of BTWC obligations. Taking into account State practice under the BTWC, as demonstrated by the 1540 database documents, the adoption of penal provisions in order to effectively prevent prohibited

⁸ See La Ley española 53/07 sobre control del comercio exterior de material de defensa y doble uso in CUADRADO RUIZ, M^a Á., "Tecnología y material biológico de doble uso: regulación española y europea" in *Las Armas biológicas. Aspectos legales, Granada*, 2011; GONZÁLEZ BUSTELO, "La nueva Ley de comercio de armas en España: una oportunidad única", in ARI, n^o 34/2007, 12/03/2007.



activities seems to be generally accepted. Despite this lack of explicit provisions on penal legislation, the Convention does impose an obligation to enact criminal law or rely upon existing criminal law in implementing its obligations.

This requires penal measures to criminalize prohibited activity and specify appropriate sanctions for violation. All States Parties therefore require penal measures to implement and enforce the Convention's prohibitions on:

- the development, production, stockpiling, other acquisition or retention of microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purpose (Article I, BTWC);
- the development, production, stockpiling, other acquisition or retention, or use, of all naturally or artificially created or altered microbial and other biological agents and toxins, as well as their components, regardless of their origin and method of production and whether they affect humans, animals or plants, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes (Article I);
- the development, production, stockpiling, other acquisition or retention of weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict (Article I);
- the use by the States Parties, in any way and under any circumstances, of microbial or other biological agents or toxins, that is not consistent with prophylactic, protective or other peaceful purposes. (Article I of the BTWC);

- experimentation involving open-air release of pathogens or toxins harmful to humans, animals and plants that have no justification for prophylactic, protective or other peaceful purposes

The European Parliament's Resolution of 16 March 1989 appeals for the Convention of 1972 to be extended to the scope of genetic engineering. Likewise, it asks for the legal prohibition of biological weapon research and the elimination of the difference between offensive and defensive research.

5.1. The Crime of Producing Biological Weapons in the Spanish penal Code⁹

Although in haste, the 1995 Spanish Penal Code (PC) foresaw the use of this kind of weapons and the destructive behaviors through genetic manipulation by banning them in the Penal Law. It is clear that truth is stranger than fiction and the cases of anthrax in the US made the classification of the production of biological weapons of mass destruction more than adequate. However, as it will be shown, another thing is how we technically get to that classification and whether its content and other aspects like its location in the PC, among other things, could be susceptible to changes in the future. The crime of producing biological weapons may be found in Title V from articles 159 to 162 of the PC, Crimes regarding genetic manipulation, more specifically article 160. In this Title, a series of conducts relating to the techniques of genetic manipulation are defined. This does not mean the genetic techniques or the advances in Biomedicine are criminalized, instead, the advances in Science demands a solution to the undeniable conflict between diverse and multiple interests at stake. Four crimes are shown in articles 159 to 162. Nevertheless, it may not be said that

⁹ See CUADRADO RUIZ, M^a A., "El delito de producción de armas biológicas", in RGDP, n^o7, may 2007; CUADRADO RUIZ, M^a A., "Bioterrorismo, una visión desde la teoría del Derecho penal", en ROMEO CASABONA, *Bioterrorismo y Bioseguridad*, Bilbao 2015, <http://hdl.handle.net/10481/38634/>; CUADRADO RUIZ, M^a A., "El terrorismo biológico como delito tras la Reforma penal de 2015", en CUADRADO RUIZ, *Cuestiones penales, A propósito de la Reforma penal de 2015*. Madrid, 2016, p. 232-233



ВИКЛИКИ СУЧАСНОСТІ

there is a legally protected right common to every precept in this Title 24. The only thing that could justify the association in the same Title of these four crimes is to make reference to diverse genetic techniques shared by all of them.

Art. 160 in the Spanish PC states:

'The use of genetic engineering to produce biological weapons or exterminate the human race will be punished with a prison term of three to seven years and public service work disqualification from seven to ten years'

The typical behavior is described as *the use of genetic engineering for the production of biological weapons or exterminating the human race*. By interpreting this conduct it may be stressed, on the one hand, the techniques of genetic manipulation or, on the other hand, the destruction of the human species by the production, through genetics, of a certain type of weapon. Both options will be analyzed. Firstly, if it is understood that the typical behavior is the use of genetic techniques to get a biological weapon, the typical conduct would be perfected with the execution of the genetic manipulation. It has to be specified that genetic manipulation would have to be carried out not necessarily on human material; they would be apt manipulations to produce biological weapons.

Another very important issue related to the type of behavior punished is that we only talk about *production*. Transport, stockpiling, possession and distribution are not defined as crimes in art. 160, even though distribution is as dangerous as production since the biological weapon will become more effective the faster the disease spreads. Therefore, these omissions in the classification of crimes are very striking. The provision excludes the use of these techniques when the extermination targets flora or fauna. Technically, it is possible to aim at the genetic alteration on chromosomes in order to just exterminate the human race. As a consequence of this, the human race could also be extinguished if biological weapons extinguish flora and fauna since

humans would not have anything to survive. But it may be even more striking to aim to a selective group of humans through genetic manipulation. Through this genetic alteration on chromosomes it is possible, for instance, to create a biological weapon aimed at blond hair people, brown-eyed people and so on. As a result, it is evident that this kind of weapons is closer to genocide. If it is stated that the typical behavior is the extermination of humankind and this should be carried out by producing biological weapons through the utilization of genetic engineering techniques, we may be facing a genocide crime since in the genocide definition extermination is seen as a modality. In this case, the production of biological weapons would be akin to the initiation of an act of genocide. This means the genocide attempt is considered a crime in article 160.1 in the PC. In accordance with this reasoning, I think the imprescriptibility to which genocide crimes is subject should be also applied to article 160.1 of the PC. In this case, the Spanish legislature would have followed the guidelines of the Convention on the Prevention and Punishment of the Crime of Genocide of 1948 where it is recommended to classify the genocide attempt as a crime. I understand that in article 160.1 of the PC we are dealing with a genocide attempt or even a *dolus eventualis* terrorism crime where the production of biological weapons would be either the beginning of the execution of the crimes of genocide or terrorism, or an anticipated intervention in peripheral areas to a crime attempt expressly punishable. Due to the seriousness of this attempt and the importance of the legally protected right, it is worth of legal sanction as a crime. This thesis would support rejecting the current emplacement of article 160.1 of the PC next to crimes of genetic manipulation since the only thing in common with them is the use of these techniques. That is why I insist in 'relocating' this crime and looking for a new structure around the legally protected right togeth-



er with genocide crimes in the Title concerning crimes against the International Community or together with terrorism crimes. That is what has been included in art. 573 and 574 (see below 5.3)

I think that the production of these weapons would constitute the beginning of an attempt of other crimes like genocide and in that case the legislature would have considered this attempt a crime. The Council Framework Decision on fight against terrorism establishes that the punishments for crimes within letters g) and h) of art. 3 shall not be less than 10 years (art. 5).

5.2. Art 565 and 566 Spanish Penal Code

In another part of the Spanish Penal Code within the crimes against public order we find the crimes related to the possession, traffic and storage and the production when is realized whatever means except genetic engineering (see art. 160). With these types of crimes we can go ahead with the penal persecution and penalization of the storage, possession and traffic and production of weapons, in general (I mean all kind of weapons).

Nevertheless, the mentioning of this was not introduced specifically in these articles (art. 566 and 567) in the Penal Code until year 2000 for chemical weapons, and not until 2003 for biological weapons.

The production of biological weapons by other methods (apart from engineering manipulation which is included in art. 160) is also included in the Penal Code arts. 565 and 566¹⁰.

5.3 The Crime of Bioterrorism

The Crime of Bioterrorism has been specifically introduced in the Spanish penal Code in the last Reform in 1/2015 30th mach, in art. 573.1 and 2¹¹.

And also in these cases, the crime of Bioterrorism does not prescript.

5.4. Concurrence with other crimes. *Crimes against environment.*

And finally, how can we penalize the distribution in the Spanish penal legislation? I think it seems to be the most dangerous issue because a simple spray with spores of anthrax, for example, may cause thousands of deaths

Article 325 of the Spanish PC punishes those who contravening the Law and other provisions protecting the environment directly or indirectly cause or produce emissions, among other things. Then, the 'emission of microorganisms (genetically modified or not) which endangers the equilibrium of the ecosystem, constitutes, from my point of view, undoubtedly, a modality of emission punishable through environmental pollution, in article 325 of the PC. This provision may then be in ideal concurrence of crimes with article 160.1, if the accidental emission of microorganisms endangers life, health of the environment. Yet, as discussed before, producing biological weapons is only punishable when it affects the human species. If there is an emission of microorganisms which only affects the equilibrium of the ecosystem, there would be no concurrence since it would not cover article 160.1 of the Spanish PC. Therefore, I think that given the concurrence between article 160.1 and 325 of the PC, the distribution (understood emission as distribution) by the person who has genetically manipulated may be prosecuted.

Following my study of environmental crimes I have concluded that the release of organisms (genetically modified or not) dangerous for the nature balance or the health of people, can constitute a form of emission, perfectly categorized in the environmental crimes of article 325 of the penal code. This way can give penal cover to the dissemination and distribution, and therefore be prosecuted. But after

¹⁰ CUADRADO RUIZ, M^a Á., "El terrorismo biológico como delito tras la Reforma penal de 2015", en CUADRADO RUIZ, *Cuestiones penales, A propósito de la Reforma penal de 2015*. Madrid, 2016, p. 233-238.

¹¹ CUADRADO RUIZ, M^a Á., "El terrorismo biológico como delito tras la Reforma penal de 2015", en CUADRADO RUIZ, *Cuestiones penales, A propósito de la Reforma penal de 2015*. Madrid, 2016, p. 221, 238-245.



the Penal Reform of 2015, environmental crimes might also become environmental terrorism crimes if those crimes are perpetrated with any of the finalities expressed in art. 573.1 SPC .

6. Final Reflections

Against this worldwide terrorism and violence, a wider consideration and respect of human rights in democratic countries, on one side, and increasing democratic values together with a cultural and economic development, on the other, are paths to peace. A peace which 'is not an aim, it is an effect, the effect of a fair social order'.

Behind these reflections on the conducts criminalized in the Spanish PC related to biological weapons, even by means of genetic engineering, I think it would be advisable *de lege ferenda* a joint and systematic treatment of crimes related to these conducts.

Some flaws and lacunae in the current regulation have been pointed out, and in my own opinion they would require a reorganization under the same Chapter in the Title on the crimes against the International Community. In this Title, the punishable acts in accordance with the principle of taxativity would be defined and a punishable framework according to the principle of proportionality would be established.

In general, I think one thing should be to inform more and better about what biological weapons are and how they work. Another one, applying control mechanisms effectively, and why not, implementing internal legislations and specifically criminal legislations.

Nevertheless, without forgetting that penal law unfortunately does not solve social conflicts and even less those of this kind. Still, without laws that categorize crimes related to biological weapons, it would be difficult to assist and cooperate to avoid its development, storage, purchase, conservation or distribution with a non peaceful aim.

There is no doubt that advances in biological and molecular genetics open unforeseen frontiers in the medicine and life-science fields if they are used for the benefit of mankind. Against this, a devastating culture of death and discrimination could also be the result of a perverse use of such techniques.

Effective and comprehensive strengthening of the national and European legislative measures and achievement of a total ban of biological weapons would be a step forward for Humanity.

7. Conclusions

Firstly, national implementing legislation is obligatory, but flexible in format. Each State Party should develop a national action plan, to identify its gaps and to enact and implement adequate laws, regulations and measures that cover its obligations under the BTWC

Secondly, administrative enforcement must be effective, but can be set up according to each States Parties' individual legal system.

Thirdly, national implementation legislation of the BTWC necessitates the inclusion of penal sanctions.

Fourthly, the formula "jurisdiction ... (and) control" does not only permit extraterritorial application of implementing legislation but establishes an obligation to extend such implementing laws beyond the territory of a State Party, in particular in the light of terrorist and proliferation threats.

Fifthly, a catalogue of already implemented and proven practices by States Parties worked out on the basis of existing national legislation would ensure that States Parties transpose the international obligations of the BTWC into their national legislation and administrative measures and would facilitate any assistance activity to other States on both the provider and recipient side. ♦

¹² CUADRADO RUIZ, M^a Á., "El terrorismo biológico como delito tras la Reforma penal de 2015", en CUADRADO RUIZ, *Cuestiones penales, A propósito de la Reforma penal de 2015*. Madrid, 2016, p. 221; CUADRADO RUIZ, M^a Á., "Agrobioterrorism crimes" (in press).



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Надійшла до редакції 03.09.2017 р.

Куадрадо Руиз. М. А. Биотерроризм в эру глобализации. Статья касается новой парадигмы такого явления, как биотерроризм в условиях глобализирующегося мира.

Отправной точкой автор считают события 11.09.2001 г. В статье анализируется международное законодательство и законодательство ЕС, выделяются ключевые правовые механизмы регулирования биобезопасности в мире и роли международных организаций. Отдельно анализируется Зеленая Книга ЕС и национальное законодательство стран ЕС и, в частности, Испании. Автором показана синергетическая связь биотерроризма и других сфер человеческой жизни: от производства биологического оружия к искусству, также раскрываются особенности состава уголовных преступлений в сфере биобезопасности.

Ключевые слова: биотерроризм, уголовное право, преступление, биологические агенты, права человека

Cuadrado Ruiz. M^a Á. Bioterrorism in the global era. The article concerns a new paradigm of such a phenomenon as bioterrorism in the conditions of a globalized world.

The starting point for the author is the events of September 11, 2001. The article analyzes the international legislation and legislation of the EU, allocates key legal mechanisms of regulation of biosafety in the world and the role of international organizations. The Green Paper of the EU and the national legislation of the EU countries, and, in particular Spain, are analyzed separately. The author shows the synergistic connection of bioterrorism in other areas of human life: from the production of biological weapons to art, also reveals the features of the criminal offenses in the field of biosafety.

Key words: bioterrorism, criminal law, crime, biological agents, human rights