18 GMO as a Weapon – a.k.a. a New Form of Aggression?

Anikó Raisz[*]

18.1 Introduction

The new Fundamental Law of Hungary has gained more international attention in its recent existence than many others get their whole lifetime. Still, this attention generally seems to be rather superficial. The author had to face this fact again recently, when at a voluminous and prestigious international conference[1] – attended by hundreds of European lawyers of agricultural and environmental law –, upon the presentation of the Hungarian national report, it turned out that one of the few even internationally relevant dispositions of the Fundamental Law, the provision on genetically modified organisms (GMOs) is almost completely unknown abroad. And it soon turned out to be one of the most interesting issues of the conference, initiating heated discussion *pro* and *contra*… Although it is tempting to enter into details whether Hungary – under its EU commitments – is entitled to such a strict regulation, the present article shifts the attention to the field of international law and concentrates on the classic role of state sovereignty and its new challenges, raising the question whether the notion of the GMO attack may be introduced into the international legal terminology. Thus the paper rather aims at inspiring a professional debate in this regard.

The notion of aggression has been in the focus of international legal debates in recent years. From an international criminal legal perspective, the question had been thoroughly elaborated. Nevertheless, in the followings, the paper[2] focuses on a different field of international law, namely international environmental law, referring to the decade-long debate over the definition of aggression and seeking answers to the newest challenges international environmental law is facing.

Besides the entering into force of the new Fundamental Law of Hungary last year,[3] the paper finds its motivation in the 2011 summer events – commonly referred to in Hungary

* Assistant professor, University of Miskolc, Faculty of Law; Political adviser, Ministry of Justice. E-mail: raiszaniko@yahoo.com.

1 European Council for Rural Law (CEDR) Congress, 11-14 September 2013, Lucerne, Switzerland.

2 This research was (partially) carried out in the framework of the Center of Excellence of Mechatronics and Logistics at the University of Miskolc.

3 Closing date of the paper is 15 November 2013.

as the 'GMO scandal'. What brought the author to the issue is the combination of these two events: what if something similar happens, i.e. GMO is smuggled into the country (and is necessarily spread there) when a fundamental law/constitution forbidding the use of GMOs in the country is in force? Is this a clear violation of the sovereignty? The paper aims at challenging the classical definition of aggression as something rather surpassed.

First, the paper describes the situation of GMOs in international law (paragraph 2), then the regulation of the Hungarian Fundamental Law (paragraph 3). The notion of aggression is followed by the issue of a GMO attack (paragraph 4), before the concluding remarks (paragraph 5).

It is worth stressing that the present paper leaves the question open-ended whether the production of GMOs is in general damaging us or our environment. It only applies the aspect of sovereignty to examine whether failing to respect that a state wants to maintain a GMO free agriculture in its territory qualifies as a *GMO attack*, realizing aggression, one of the most severe breaches of international law to be committed *versus* a state.

18.2 GMOs in International Law

Nowadays, genetically modified (GM) plants are grown on approximately 150 million hectares[4] worldwide.[5] The biggest producers are the United States of America, Brazil, Argentina, India and Canada; but of course, we cannot forget about China or South Africa either. Although altogether 25 countries produce GMOs, the mentioned five states provide more than 90% of the world's GMO production. In some years (i.e. since 2007),[6] territories where GM plants (above all, soybean, maize, rapeseed and cotton) are grown have increased with more than 30%, representing altogether almost 10% of the global producing areas (approximately 1,5 billion hectares).[7] In Europe,[8] Spain, Sweden, Poland, Romania, the Czech Republic and Slovakia are the main GMO-producers, while GMO production is declining in France and Germany.[9]

4 In 2009, this number has been 134 million hectares. *See* www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/257.global_gm_planting_2009.html (retrieved on 1 April 2012).

5 *FAO Statistical Yearbook*, 2012, p. 313.

6 In 2007, GMOs had been produced on 114 million hectares worldwide. For a further complex assessment *see* J.E. Szilágyi, 'A zöld géntechnológiai szabályozás fejlődésének egyes aktuális kérdéseiről', 2 *Miskolci Jogi Szemle* (2011), pp. 36-54, p. 36.

7 *See FAO Statistical Yearbook* 2012, p. 14.

8 *See* www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/392.gm_maize_cultivation_europe_2009.html (retrieved on 1 April 2012).

9 E.g. in 2009, Germany enacted a cultivation ban. For a very critical approach on the European scepticism on GMOs, especially trying to claim violations of international and EU law, basically relying on international trade law but not on international environmental law, *see* A.L. Stephenson, 'Germany's Ban of Monsanto's Genetically Modified Maize (MON180): A Violation of International Law', 2 *Trade, Law and Development* (2010), pp. 292-328.

GMO industry is one of the fastest-growing industries of the world. As the new products show up in the market very soon, there is not enough time to detect the possible side-effects, violating many principles of international law (above all the precautionary principle) as well as human rights standards. At the same time, it is a very complex issue, touching upon human rights law, international trade law, intellectual property law and international environmental law.[10] It would certainly require a complex international regulation (and, some dare to propose, a particular dispute settlement system),[11] but we see a very different picture in international law instead.

One of the most important international documents[12] on GMOs is the so-called Cartagena Protocol to the Convention on Biological Diversity (1992), on biosafety, focusing on agricultural GMOs.[13] This document – opened to signature in 2000, entered into force in 2003, after having reached the required fifty ratifications – currently has 166 State Parties,[14] among others Hungary as well.[15] Of the above-mentioned GMO world powers, the USA, Canada and Argentina are not party to the convention which – based on the precautionary principle[16] – rules especially on the transport, management and use of genetically

10 H.F. de Oliveira Souza, 'Genetically Modified Plants: A Need for International Regulation', 6(1) *Annual Survey of International and Comparative Law* (2000), pp. 129-174, p. 130.

11 *See* among others Hutchinson bringing up another argument for a separate International Environmental Court: M.A. Hutchinson, 'Moving Beyond the WTO: A Proposal to Adjudicate GMO Disputes in an International Environmental Court', 10 *San Diego International Law Journal* (2008-2009), pp. 229-263, pp. 259-263.

12 Although the present paper does not discuss it in detail, both the World Trade Organization (WTO) and the European Union (EU) have a considerable practice in this regard as well. For a detailed analysis of these legal materials – belonging partly to neighbouring legal fields (law of international economic relations), partly to a *sui generis* legal system (EU) – *see* J.G. Carrau, 'Lack of Sherpas for a GMO Escape Route in the EU', 8 *German Law Journal* (2009), pp. 1169-1199; Szilágyi, 2011, pp. 38-40; M.R. Grossman, 'The Coexistence of GM and Other Crops in the European Union', 3 *Kansas Journal of Law and Public Policy* (2007), pp. 324-392; and furthermore J.E. Szilágyi, 'A géntechnológiai szabályozás nemzetközi- és közösségi jogi kérdései', in J.E. Szilágyi (Ed.), *Környezetjog: Ágazati környezetvédelem és kapcsolódó területei*, Novotni, Miskolc, 2008, pp. 61-72. Furthermore, the present paper focuses only on documents adopted at universal level, according to the particularities of the topic.

13 For a detailed assessment of the Cartagena process *see* G.W. Schweizer, 'The Negotiation of the Cartagena Protocol on Biosafety', 2 *The Environmental Lawyer* (1999-2000), pp. 577-602.

14 As of November 10, 2013.

15 Hungary was one of the very first states to sign the document, but has not become a Party until 2004.

16 The precautionary principle might be the most significant disposition of the Rio Declaration (*see* A. Kiss and D. Shelton, *International Environmental Law*, Ardsley, NY, UNEP, Transnational Publishers, 2004, p. 114). It basically means that even lacking the scientific certainty, the probability and scope of a given environmental damage shall be examined, necessarily presupposing transparency. It was first weighed in the *Gabcikovo-Nagymaros* case (brought in by Hungary), but not yet accepted by the International Court of Justice at the time, *see Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, Judgment of 25 September 1997, 1997 ICJ Rep., p. 7, Paras. 54-57, 97. Today, it is one of the most important principles of international environmental law. For further reading *see* G. Herczegh, 'Bős-Nagymaros', 47(2) *Valóság* (2004), pp. 1-20; B. Nagy, 'Bős-breviárium', 10(10) *Beszélő* (2005); M. Szabó, 'A hágai Nemzetközi Bíróságnak a Duna elterelésével kapcsolatos döntése és a nemzetközi jogtudomány', in Szabó (Ed.), *Emlékkönyv Apáthy István tiszteletére*, Europa Nostra, Budapest, 2010, pp. 165-204; P-M. Dupuy, *L'invocation de l'état de nécessité écologique: les*

modified organisms, above all in order to conserve biological diversity and to preserve human health. Although a great milestone on the way to an international regulation of GMOs, the Protocol is nevertheless considered as a clear diplomatic compromise, without doing 'a very good job of controlling the risks associated with these organisms.'[17] However, it is also an example of public concerns finally altering strict political standpoints.[18] Apart from the Cartagena Protocol, numerous soft law rules concern the GM technology in international law.[19]

GM technology resulting in GMOs shall be distinguished from the beginning from biotechnology, an essentially broader notion, including many other fields than GM technology, from genetic resources preservation through embryo transfer in animals to the diagnosis of plant and animal diseases.[20] Therefore it is understandable that biotechnology – which also includes the traditional plant improvement – is widely accepted among the population, while GM technology – besides its significant supporters – faces numerous critics as well. Its supporters expect GMOs to solve future famines and to increase the nature conservation areas. Its critics point among others to the fact that through the decades of its use, none of these fields have seen advances, but the GMO producers' (expensive) special chemicals had to be and have been applied; furthermore, we act without knowing the long-term effects, and we have no effective protection against genetic pollution or genetic escape (the evasion of modified formulas into not targeted areas).[21] The present article does not aim at taking sides in this dispute – which would, by the way, require a thorough knowledge of natural sciences –, but the author, based on past experiences, widely supports the use of the precautionary principle with regard to this issue. At this point, it is not necessary to judge on GMOs, it is enough to know its fundamental features. Therefore, in the followings, the paper describes the event when a GMO gets into an area it was not supposed to get into as GMO pollution in a narrower sense.

---

enseignements tirés d'une étude de cas, La nécessité en droit international: colloque de Grenoble, Pedone, Paris, 2007; P. Kovács, *A nemzetközi jog fejlesztésének lehetőségei és korlátai a nemzetközi bíróságok joggyakorlatában*, MTA doktori értekezés, 2009, pp. 149-151, p. 180.

17 S. McCaffrey, 'Biotechnology: Some Issue of General International Law', 14 *The Transnational Lawyer* (2001), pp. 91-102, p. 95.

18 *See* Schweizer, 1999-2000, pp. 601-602.

19 *See* e.g. in the frame of the FAO or the UNEP, or – at regional level – the Organisation of American States.

20 For more details *see FAO Statistical Yearbook 2012*, 314.

21 For further details *see* e.g. J.E. Szilágyi, 'A géntechnológia jogi szabályozása', in J.E. Szilágyi (Ed.), *Környezetjog: Tanulmányok a környezetjogi gondolkodás köréből*, Novotni, Miskolc, 2010, pp. 105-128, pp. 105-106; L. Zsiros, 'A mezőgazdasági géntechnológia jogi szabályozása a géntechnológia szemszögéből', in M. Dobróka et al., *Diáktudomány. A Miskolci Egyetem tudományos diákköri munkáiból,* Miskolci Egyetemi Kiadó, Miskolc, 2010, pp. 162-167; E. Tanka, 'Adalékok a génmódosított növények hazai köztermeszthetőségéhez', 15(3) *Gazdaság és Jog* (2007), pp. 20-26; E. Tanka, 'Génügy, élelmiszerbiztonság, alkotmányos jogvédelem', 13(9) *Gazdaság és Jog* (2005), pp. 20-26; E. Tanka, 'Alkotmányos bástya a génhadjárat ellen', 20(1) *A falu* (2005), pp. 37-49.

18.3 Hungary: GMOs and the New Fundamental Law

The new Hungarian Fundamental Law – entered into force on 1 January 2012 – includes numerous provisions relevant from the point of view of international environmental law.[22] In this regard, the new constitution is definitely a big step forward compared to the old one.[23] This development is however not only the achievement of the lawmakers, but reflects clear social support as shown by some of the results of the preliminary process called 'National Consultation'.[24] The significance of including certain values in the Constitution may not be denied even knowing that it was not the first constitution mentioning environment and sustainability,[25] and bearing in mind that a declaration at constitutional level may only come to full realization through appropriate legislative acts of a lower level.[26]

According to the National Avowal, '[w]e bear responsibility for our descendants; therefore we shall protect the living conditions of future generations by making prudent use of our material, intellectual and natural resources.'[27] Furthermore, it is stated in Article P) that

> [a]ll natural resources, especially agricultural land, forests and drinking water supplies, biodiversity – in particular native plant and animal species – and cultural assets shall form part of the nation's common heritage, and the State

22 *See* the National Avowal, as well as Arts. P), Q), XX and XXI. On this issue, *see* among others Cs. Csák, 'Gondolatok a "szennyező fizet" elvének alkalmazási problémáiról', *Miskolci Jogi Szemle* (2011) (special edition), pp. 31-45, pp. 44-45; L. Fodor, 'A természeti tárgyak helye és szerepe az új alkotmányban', in T. Drinóczi and A. Jakab (Eds.), *Alkotmányozás Magyarországon 2010-2011*, Pázmány Press, Budapest – Pécs, 2013, pp. 89-103; A. Pánovics, 'Környezetvédelem az új Alkotmányban', 1-2 *Kül-Világ* (2011), pp. 117-133.

23 For further reading *see* L. Fodor, 'A környezethez való jog dogmatikája napjaink kihívásai tükrében', 1 *Miskolci Jogi Szemle* (2007), pp. 5-19.

24 The new Hungarian Fundamental Law was preceded by a so-called National Consultation, a central consultation process, in the frame of which the citizens – approximately 900,000 – expressed their opinion in questions like that the new constitution shall take responsibility for future generations (Question No. 6, 86% – the percentage shows the proportion of support), that it shall protect the biodiversity of the Carpathian Basin (Question No. 9, 95%[!] in two sub-questions together), as well as arable land and water resources (Question No. 10, 97%[!]). Source of data (retrieved on 15 November 2011) http://static.fidesz.hu/download/156/A_Nemzeti_Konzultacios_Testulet_kerdoivenek_eredmenyei_2156.pdf. For a more detailed analysis of the National Consultation *see* A. Raisz, 'A Constitution's Environment, Environment in the Constitution – Process and Background of the New Hungarian Constitution', 1 *Est Europa – La Revue*, special edition (2012), pp. 37-70.

25 *See* among others the French, Norwegian or Finnish constitutional solutions.

26 Furthermore, obviously, members of the society as well as economic actors shall make the right decisions. *See* among others the Position of the National Council for Sustainable Development on the New Fundamental Law of Hungary, 25 May 2011, www.nfft.hu/allasfoglalasok_az_uj_alaptorvenyrol_es_a_videkstrategia_koncepciojarol (retrieved on 6 August 2011), p. 1; Z. Nagy, 'Fenntartható költségvetési elvonások rendszere a környezetvédelem területén', *Publicationes Universitatis Miskolcinensis, Sectio Juridica et Politica*, Tomus XXIX, Vol. 1, Miskolc University Press, 2011, pp. 247-258.

27 *See* furthermore J.E. Szilágyi, 'Az agrárjog dogmatikájának új alapjai: Útban a természeti erőforrások joga felé?', 3 *Jogtudományi Közlöny* (2007), pp. 112-121.

> and every person shall be obliged to protect, sustain and preserve them for future generations.[28]

It even refers to international environmental law in Article Q)(1) when proclaiming that '*[i]n order to […] achieve the sustainable development of humanity, Hungary shall strive for cooperation with every nation and country of the world*.'

Article XX takes definite sides in the debate on GMOs. It says:

> (1) Every person shall have the right to physical and mental health. (2) Hungary shall promote the exercise of the right set out in Paragraph (1) by ensuring that its agriculture remains free from any genetically modified organism, by providing access to healthy food and drinking water, by managing industrial safety and healthcare, by supporting sports and regular physical exercise, and by ensuring environmental protection.

However, on the one hand, this provision does not mean a complete protection from consuming GMOs, on the other hand, as certain scholars argue, the text does leave a rather vast margin of appreciation[29] and may only be regarded as a declaration.[30]

The above rules are completed with Article XXI stipulating that

> (1) Hungary shall recognise and enforce the right of every person to a healthy environment. (2) A person who causes any damage to the environment shall be obliged to restore it or to bear all costs of restoration as defined by law. (3) No pollutant waste shall be brought into Hungary for the purpose of dumping.

This phrasing necessarily has not come out of the blue: the relevance of this article is underlined by certain – even internationally known – sad events in the recent past (the scandal of illegally imported waste from Germany, the red sludge catastrophe, etc.). The

28 On the important role of water supplies in the Hungarian economy *see* P. Szűcs et al. (Eds.), *Vízkészletvédelem*, Bíbor, Miskolc, 2009, pp. 21-36.

29 *See* Á. Tahyné Kovács, according to whom e.g. the inclusion of the precautionary principle would have been much more effective, or that the ban – as it appears in Art. XX, therefore probably – is only valid in that regard (i.e. no negative health effects, no restriction on GMOs), Jelölti válasz *A genetikailag módosított szervezetekre vonatkozó szabályozásról egyes környezetjogi alapelvek, különösen a fenntartható fejlődés tükrében* című PhD disszertáció opponensi véleményeire, 10 October 2013.

30 L. Fodor, 'A GMO szabályozással kapcsolatos európai bírósági gyakorlat tanulságai', in Csák (Ed.), *Jogtudományi tanulmányok a fenntartható természeti erőforrások témakörében*, Miskolci Egyetem, Miskolc, 2012, pp. 65-75, p. 74.

above provision is clearly in line with the internationally recognised polluter pays principle[31] as well as the jurisprudence of the European Court of Human Rights[32] and the Council of Europe's efforts[33] in this regard. Furthermore, with regard to the issue discussed here, it seems relevant that the mentioned provisions are a clear declaration of state's will as well.

Nevertheless, merely a few weeks after the adoption of the new constitution, a strict control[34] issued in April 2011 revealed thousands of hectares of predominantly corn grown from illegally[35] imported GMO polluted seeds in Hungary,[36] which had to be destroyed subsequently. A special Working Group was set up to help to clarify the situation in a legal sense,[37] the farmers have been compensated, the procedure aiming at finding those responsible has not come to an end yet. Let these events – without further discussion – simply serve here as the initial starting point of a discussion focusing on certain related issues of international law.

As – purely theoretically, without an in-depth examination of the notion of state sovereignty[38] – it is clear that the GMO polluted seeds had been imported to the territory contrary to the state's will. The only question that remains is whether this can be regarded as an act of aggression.

18.4 The Notion of the Crime of Aggression

The notion of aggression has been a permanent source of conflict in international law for decades. Recently, the 1998 Rome Statute of the International Criminal Court brought it

31 I. Olajos et al., 'The Polluter Pays Principle in the Agriculture: A szennyező fizet elv megjelenése a mezőgazdaságban', 1 *Journal of Agricultural and Environmental Law* (2006), pp. 29-55.

32 *See* among many others *Okyay v. Turkey*, 12 July 2005, No. 36220/97; *Taşkin et al. v. Turkey*, 10 November 2004, No. 46117/99; *Fadeyeva v. Russia*, 9 June 2005, No. 55723/00. *See* furthermore Manual on Human Rights and the Environment – Principles Emerging from the Case-Law of the European Court of Human Rights; Committee of Ministers, 2005/186 Addendum, 16 December 2005, CDDH, 61st meeting, Final Activity Report, point 2.

33 1993 Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, CETS No. 150, and 1998 Strasbourg Convention on the Protection of Environment through Criminal Law, CETS No. 172. So far, both conventions are light-years away from entering into force, although only three ratifications are needed for each…

34 Raisz and Szilágyi, 'Development of Agricultural Law and Related Fields (Environmental Law, Water Law, Social Law, Tax Taw) in the EU, in Countries and in the WTO, 12 *Journal of Agricultural and Environmental Law* (2012), pp. 107-148, p. 111.

35 I.e. contrary to the regulations then in force on which *see* I. Olajos, 'A géntechnológiai tevékenység szabályozása Magyarországon', in Szilágyi (Ed.), 2008, pp. 73-89.

36 J.E. Szilágyi and A. Raisz, 'Hungarian National Report, Scientific and Practical Development of Rural Law in the EU, in States and Regions and in the WTO', *CEDR, XXVI European Congress and Colloquium of Agricultural Law*, Bucharest, 21-24 September 2011, p. 7.

37 *See* an excellent overview of the issue in Szilágyi, 2011, especially p. 41.

38 For a brief overview of state sovereignty *see* M. Miyoshi, *Sovereignty and International Law*, pp. 1-10, available at https://www.dur.ac.uk/resources/ibru/conferences/sos/masahiro_miyoshi_paper.pdf.

back to the centre of attention again.[39] The difficulties seem to have ended in Kampala[40] for now. As the questions raised in this article might also affect the future of this very notion, a future already feared to be a difficult one by certain experts of international criminal law.

The notion of the crime of aggression had not been determined until 1974, although its prohibition was already included in the Charter of the United Nations, i.e. in its French language version.[41] In 1974, GA Res. 3314 (XXIX) was adopted, which on the one hand confines the circle of possible perpetrators to the states,[42] on the other hand mentions the examples of conducts aggression may be realized with.[43] Although according to Article 1, aggression – i.e. the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State – may be committed also in any other manner inconsistent with the Charter of the United Nations, not present in the list of Article 3; the provision urges to add that this may only be interpreted within the frame of the definition, i.e. the given GA resolution.

In Kampala, this definition has been referred to with regard to the jurisdiction of the International Criminal Court; however, many scholars miss a new, different approach.[44] As – although having had a great significance at its own time – the definition of 1974, focusing on state liability, hardly answers the requirements of international criminal law and individual criminal liability.

---

39 Aggression is one of the international crimes under the jurisdiction of the International Criminal Court (ICC), the content of which was highly disputed during the negotiations of the ICC Statute. The states agreed on coming back later to the question. (*See* United Nations Diplomatic Conference of Plenipotentiaries on the Establishment of an International Criminal Court, Rome, 15 June – 17 July 1998, Official Records, retrieved from http://legal.un.org/icc/rome/proceedings/E/Rome%20Proceedings_v2_e.pdf, on 15 November 2013.) For further reading *see* T.V. Ádány, *A legsúlyosabb jogsértések miatti felelősségre vonhatóság nemzetközi jogi tendenciái, különös tekintettel a Nemzetközi Büntetőbíróság joghatóságának előfeltételeire*, PhD, 2011.

40 Finally, in 2010, in the review conference in Kampala (Uganda), an agreement could be reached on the most urgent questions related to the crime of aggression. For further reading *see* J.N. Maogoto, 'Aggression: Supreme International Offence Still in Search of Definition', 6 *Southern Cross University Law Review* (2002), pp. 278-317, pp. 281-282; S.N. Haskos, 'An Argument for the Deletion of the Crime of Aggression from the Rome Statute of the International Criminal Court', 23 *Pace International Law Review* (2011), pp. 249-268; on other aspects *see* E. Kirs, *Demokratikus átmenet a háborús bűntettek árnyékában*, Bíbor, Miskolc, 2012.

41 The French version of Art. 51 speaks of an '*agression armée*', while the English of an 'armed attack' with regard to self-defence. This was the initial (doctrinal) starting point of the debate after 2001 concerning the United States of America and the legality of its counter-actions. On this debate *see* P. Kovács, *Nemzetközi közjog*, Osiris, Budapest, 2011, p. 124; L. Valki, 'A 2001. szeptember 11-i terrortámadás és az önvédelem joga', *Acta Universitatis Szegediensis de Attila József Nominatae Sectio Juridica et Politica*, 2002, pp. 419-429.

42 GA Res. 3314 (XXIX) of 14 December 1974, Art. 1.

43 GA Res. 3314 (XXIX), Art. 3. Basically, here belong the invasion, the bombardment of the territory of another state, the blockade of its ports or coasts, the attack on its armed forces, and other cases when armed forces which are within the territory of another state violate the conditions of the agreement on their presence, when the state's territory is placed at the disposal of another state to perpetrate an act of aggression, or when armed bands, groups, irregulars or mercenaries are sent against another state.

44 R. Heinsch, 'The Crime of Aggression after Kampala: Success or Burden for the Future?', 2 *Goettingen Journal of International Law* (2010), pp. 713-743, pp. 723-724.

The definition of aggression poses two key questions: *who attacks?* and *how?* GA Res. 3314 (XXIX) does not give a satisfying answer. The question of *who attacks?* was – understandibly – raised in the wake of recent terrorist attacks. For instance, the principle position of the United States is that not only states may commit aggression, but e.g. terrorist groups as well, and in this case the state disposes of the right to self-defence[45] just as if it was an international conflict. Following this line of thinking – aware that certain economic circles may often be regarded to be more decisive elements of world politics than certain states –, multinational companies may appear as possible perpetrators as well. If we accept that they are subjects of international law in this regard, it is needless to pose the question whether there is a state behind a GMO attack. Although, naturally, this cannot be excluded either. Certain not attacked countries with a GMO free economy may easily profit from one or two concurrents falling out of the market after such pollution. However, in the concrete case, lacking accurate data, all this is mere speculation. Nevertheless, if we focus on the notion of the GMO attack, there is no need finding an answer to this problem. It is sufficient to recognize that aggression – in the sense of international law – may not necessarily be committed by a state, as it may be derived from the so-far only existing usable definition of aggression.

The question of *how* the attack occurred appeared much earlier,[46] in the 1960s, 1970s, mainly from the part of the developing states. Namely, they found that an approach which says that coercion against a state may only be committed by the means of military actions is one-sided, far from reality. The Great Powers obviously turned a deaf ear to the proposal of qualifying economic coercion as an act of aggression.[47] The world has nevertheless experienced great changes ever since. It became obvious that a coordinated hacker-attack may be at least as devastating as an armed attack. Probably the 2007 events in Estonia helped the European states to realize that they – like the United States of America – also need the elaboration of national strategies against hacker attacks.[48] It is equally obvious

45 Furthermore, the USA introduced the so-called 'pre-emptive defence' doctrine, which is until date highly disputed and criticized. On this topic *see* furthermore A. Carty, 'The Iraq Invasion as a Recent United Kingdom "Contribution to International Law"', 1 *EJIL* (2005), pp. 143-151; O. Corten, *The Law against War*, Hart Publishing, Oxford, 2010; A.D. Sofaer, 'On the Necessity of Pre-emption', 2 *EJIL* (2003), pp. 209-226; M. Bothe, 'Terrorism and the Legality of Pre-emptive Force', 2 *EJIL* (2003), pp. 227-240.

46 Or even on a Soviet proposal of a similar sense in the 1930s *see* Maogoto, 2002, p. 287.

47 *See* the *travaux préparatoires* of the 1969 Vienna Convention on the Law of Treaties (1155 UNTS 331), especially the concerning – and denied – Brazilian proposal. *See* M.E. Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, Martinus Nijhoff Publishers, Leiden, 2009, p. 643. Nevertheless, the Final Act of the Vienna Convention contains a – rather symbolic – passage reprehending economic coercion. For details *see* Kovács, 2011, p. 119. *See* furthermore M. Domb, 'Defining Economic Aggression in International Law: The Possibility of Regional Action by the Organization of American States', 11 *Cornell International Law Journal* (1978), pp. 85-105.

48 Ever since, the news are full of records of such cyber attacks, *see* among others www.hirado.hu/Hirek/2012/03/30/15/Kina_mi_nem_tamogatunk_hackereket.aspx; www.hirado.hu/Hirek/2012/03/08/14/Kiberhabo

that deliberate, grave environmental pollution – may it affect water (including groundwater), air or soil – may also cause as much destruction as an armed attack.[49]

Following this way of thinking, we come to the GMO attack, where the central question is not whether a (deliberate) GMO pollution damages the environment,[50] and if so, to what an extent, but only that by violating the precautionary principle even the existence of the danger may establish to qualify a deliberate GMO pollution as an attack, a coercion. And not only because of the damages suffered by nature or human rights concerns,[51] but as the GMO – at least on the European market – is an economic question.[52] European consumers generally prefer namely GMO free products; evidently, Article XX of the new Hungarian Constitution aims at helping the situation of the Hungarian agricultural products both in internal and external markets by spreading this GMO free image. All this could nevertheless lead us back to the question of who attacks?…

Necessarily, such an idea may seem strange to those denying the raison d'être of the precautionary principle and relying completely upon free trade as provided by the WTO.[53] However, the author finds this approach highly questionable simply referring to the Rio Declaration[54] and the good old common sense, and assumes at the same time that the idea brought up in this article could more easily find supporters in the old continent than in America, as indicated by the differing standing points. Europe is more eager to respect the

---

ru_es_nemzetkozi_hackerakciok_2012_ben__idorendben.aspx; www.kormany.hu/hu/honvedelmi-miniszterium/honved-vezerkar/hirek/kibertamadas-hatasait-vizsgaltak (retrieved on 6 April 2012).

49 This idea is basically supported both by the notion of 'ecocide' and by the Biological as well as the Chemical Weapons Conventions (Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, 1974 UNTS 45, and Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction, 1015 UNTS). (One of the vanguards of the fight against ecocide in a broad sense, P. Higgins takes a different approach in her work 'Eradicating Ecocide' – *see* www.eradicatingecocide.com, retrieved on 6 April 2012, naming ecocide as a separate international crime, *see* furthermore www.guardian.co.uk/environment/2010/apr/09/ecocide-crime-genocide-un-environmental-damage, retrieved on 6 April 2012. Although her origination is more than topical, the author of the present article considers that, with regard to the notion of a GMO attack as mentioned here, it would be easier (and therefore more probable) to widen the notion of aggression than to create a completely new category of international crime. Or, maybe, the present suggestion could pave the way for her idea as well. Nevertheless, politics take over from lawyers at this point; therefore, the outcome is not foreseeable.

50 This approach is backed both by the experience and the rules of international environmental law as well.

51 The European Court of Human Rights (ECtHR) have already faced the GMO question, but – as it seems – was beware entering the details and merely declared that 'it is not yet known what influence GMOs have on the environment and the health of humans'. *See Hubert Caron et al. vs. France*, Inadmissibility, 19 June 2010, No. 48629/08. Its conclusion, saying that the petitioners have no victim status because of the distance between their lands and those polluted with GMOs, raises several questions that exceed the frame of this article. Nevertheless it is of utmost importance that the ECtHR did not exclude *per se* the violation of Arts. 2 and 8 ECHR, and of Art. 1, First Additional Protocol.

52 *See* furthermore J.E. Szilágyi, 'Környezetvédelem az európai uniós jogban', in J.E. Szilágyi (Ed.), 2010, pp. 51-72.

53 *See* Stephenson, 2010, above.

54 On the precautionary principle *see* McCaffrey, 2001, pp. 97-98.

precautionary principle, while the United States is more reluctant to interfere with the actions of private companies.[55] More understandable would nevertheless be the scepticism towards the approach examined in this paper asking how could we ponder on a GMO attack as an act of aggression if the only existent related universal hard law material, the Cartagena Protocol[56] did not even address the question of liability for harm resulting from the transboundary movement of GMOs? And the answer would be: as the two issues are different. Although having several common points, the first should be addressed on the basis of sovereignty, while the latter on the basis of the classic rules of international law on liability,[57] as e.g. foreseen by the International Law Commission's Draft Articles on the Prevention of Transboundary Damage from Hazardous Activities. These are two separate issues; important would be to realize that the time to think about this question is now. Even if we finally reject the idea of accepting a GMO attack as an act of aggression, it has to be discussed now, until GMOs are so widespread that any alike conversation would be meaningless.[58]

18.5 Conclusions

According to the hypothesis of the present paper, a GMO attack constitutes a grave violation of state sovereignty, and it is a form of coercion, the use of force against a state. Therefore, the – otherwise too narrow – notion of aggression should be broadened in order to secure a proper place for the GMO attack in international law.

As stressed above, questions as to the notion of aggression have risen not only nowadays, but decades earlier. Today, the notion should be broadened in two regards: as to *who* and *how attacks?*; i.e. the perpetrator may not necessarily be a state (in the international criminal legal sense, a state leader), and the use of force against a state may not necessarily be committed in the forms known from GA Res. 3314 (XXIX).

As a deliberate GMO-pollution originating from abroad, and contrary to the express will of the state is the violation of state sovereignty, which may even have human rights consequences (among others the violation of the right to health). The territory of the state is violated anyway, though, admittedly, not in a classical way. Of course, above all with

55 For an overview of the difference *see* Hutchinson, 2008-2009, pp. 237-246; Grossman, 'Protecting Health, Environment and Agriculture: Authorisation of Genetically Modified Crops and Food in the United States and the European Union', 2 *Deakin Law Review* (2009), pp. 257-304.

56 *See* McCaffrey, 2001, p. 95.

57 Furthermore *see* J. Bruhács, 'A környezeti károk miatti nemzetközi felelősség büntetőjogi aspektusai', in F. Sükösd (Ed.), *Emlékkönyv Markos György egyetemi adjunktus tiszteletére*, PTE Állam- és Jogtudományi Kar, Pécs, 2009, pp. 37-56.

58 For a new approach to international law and its substantial elements *see* A.A.C. Trindade, *International Law for Humankind – Towards a New Jus Gentium*, The Hague Academy of International Law Monographs, Vol. 6, Martinus Nijhoff Publishers, Leiden, Boston, 2010.

regard to the (state and non-state) powers standing behind the GMO, the author does not count with the appearance of the notion of a GMO attack in international legal documents in the near future. This article merely aimed at raising the question, as jurisprudence should discuss the possible dogmatics of the GMO attack until the situation changes (for the better).