

Summary

Chapter I:

1. Presently, end consumers of commercially sold GMOs do not have any specific advantage from modern biotechnology. Whether and how much farmers benefit economically from planting is controversially discussed among experts. Several studies have come to contrary results, indicating that a general statement on the profitability of GMOs cannot be made. Instead, the cost effectiveness has to be identified on a case-by-case basis. Only the agrochemical industry as seller of GMO seeds seems to draw substantial profit out of the business (p. 28-34).
2. Regardless of its potentially harmful secondary effects, modern biotechnology in the agricultural sector may in the short term be more environmentally friendly than the ordinary industrial cultivation. In the long run, however, the sustainability of GMOs heavily depends on the resistance to weeds and pests and on the verified secondary effects (p. 31-34).
3. It is doubtful whether GMOs can serve as part of a sustainable solution against world hunger, since such a solution ignores the role of poverty as a cause of hunger (p. 40-44).
4. Most risks which are attributed to GMOs are not specific risks deriving from modern biotechnology. Only unexpected side effects such as pleiotropic and position effects, which may occur while engineering new genetic information into an organism, could be regarded as such a specific risk (p. 47-51).
5. The creation of "super weed" through the gene flow from herbicide tolerant crops to wild plant relatives is rather an economic problem for farmers than a threat to the conservation of biological diversity (p. 51-54).
6. More and more countries have become increasingly concerned about negative effects of GMOs. This behaviour may be partly based on the negative risk perception of consumers towards GMOs, caused by a presumed alliance of government, industry, and science. It may also be grounded in the aggressive campaigning of some NGOs against GMOs, thereby creating horror scenarios

that go far beyond a reasonable consideration of the issue (p. 62-66).

Chapter II:

The international environment (periphery) in the area of biosafety

7. Although the Biosafety Protocol (CPB) is the first multilateral treaty dealing specifically with biosafety, there are several international documents which have focused on this issue already in the early 1990s. Other agreements exist which do not refer explicitly to biosafety, but touch on the issue in relevant parts. Hence, the CPB did not enter uncharted territory in this area (p. 69-96).
8. Due to its specific reference to certain organizations and standards, the SPS Agreement enhances their legal impact. It does so by the assumption of conformity of a measure with the SPS Agreement as long as this measure is in line with the relevant standard. However, the structure of those organizations was not meant to cope with such an increase of legal relevance. As a result, trade-related controversies are carried into scientific committees. Problems are thereby not solved but relocated (p. 101-104).
9. The organizations referred to in the SPS Agreement are on the way towards adopting biosafety-related standards. However, as long as they are created within the Codex Alimentarius they do not have the legal impact described above. The reference in Annex A (3) SPS is limited to certain committees of the Codex Alimentarius (p. 82-83; 87-90).

Central Issues of the Biosafety Protocol

10. Neither the text nor the negotiating mandate of the working group nor the structure of the protocol indicate that human health is to be regarded as a separate object of protection within the CPB (p. 164-169).
11. The CPB classifies LMOs not according to their specific engineered content but according to their intended use. The AIA procedure as the central element of the protocol generally applies only to LMOs intended for deliberate release into the environment. Hence, 90 % of international trade in LMOs is not subject to the AIA procedure (p. 153-160).

12. The CPB contains four different wordings of the precautionary approach at different levels. As part of the decision making process it applies only if scientific uncertainty exists with regard to the extent of a risk but not relating to its nature (p. 180-190).
13. Socio-economic impacts do not by themselves justify a decision according to Art. 10 (3) CPB (p. 189-192).
14. The CPB has several specific clauses in which it regulates its legal relation to other international agreements, but it does not have a general saving clause. Preambular paragraphs 10 and 11 are solely interpretative notes (p. 220-237).

Chapter III:

WTO/GATT

15. The design and structure of the WTO/GATT system still rely on the concept of preserving the benefits of a member accruing to it through tariff concessions. A trade restrictive measure with regard to a certain product may distort this equilibrium (p. 243-252).
16. If the *non-violation complaint* of Art. XXIII:1(b) GATT / Art. 26 DSU is based on the concept of the *clausula rebus sic stantibus* principle, it becomes also applicable for environmental measures justified pursuant to Art. XX (b) GATT as soon as the specific criteria are met (p. 286-292).
17. Under certain circumstances, the non-violation complaint may even be applied in a manner to promote the implementation of international environmental treaties (p. 292-293).
18. With the introduction of the requirement to base a national SPS measure on scientific principles, the SPS Agreement did not only enlarge the scope of GATT but also departed from its original approach. Under GATT, the central obligation is not to discriminate members either with regard to other countries or with respect to their own country. According to the SPS Agreement, a trade restrictive measure is also void if it is not based on scientific principles, even if it does not discriminate against another country (p. 294-296).
19. GATT 1994 and the SPS Agreement are reconcilable. Due to the synchronism of their aim and purpose, conflicts as mentioned in the interpretative note to Annex 1 A of the WTO Agreement are unlikely to arise (p. 305-307; 310-315).

20. In disputes where both the SPS Agreement and GATT would be applicable, GATT has no independent legal relevance. Whenever a measure is in compliance with the SPS Agreement, it is by definition also in line with GATT. However, if a WTO member bases a complaint in a dispute settlement procedure solely on the violation of GATT rules and does not refer to the SPS Agreement, a legally relevant difference may appear due to a different burden of proof: GATT requires the applicant only to prove that the measure in question violates Art. III:4 GATT. The defendant then has to demonstrate whether or not the measure is justified according to Art. XX GATT. Contrastingly, the SPS Agreement does not rely on such a two-step approach with a shifting burden of proof (p. 307-310).

Biosafety Protocol – SPS Agreement

21. LMOs with potentially adverse effects on the environment and biological diversity are generally covered by the scope of Annex A (1) SPS, whereas it is more cumbersome to include LMOs with potential adverse effects to human health (p. 320-327).
22. The CPB is not yet a standard in the sense of Annex A (3) SPS. However, the protocol could become such a standard if adopted by the SPS Committee with the required majority (consensus) (p. 333-336).
23. The relationship between the SPS Agreement and the CPB may be legally analysed in two different ways. The first one is taken from the perspective of international law, the second one from the perspective of how to settle conflicts arising within the WTO. Both, SPS as well as CPB rules are part of the body of international law. As such they mutually influence each other according to the general rules of international law. Hence, if provisions of the SPS Agreement are not compatible with those of CPB, the arising conflict may be resolved pursuant to the *lex posterior* or *lex specialis* rule, unless a more specific saving clause in one of the treaties prevails. This scenario is to be distinguished from the situation where a national measure based on the CPB is challenged by a WTO member within the WTO dispute settlement procedure. Here, the adjudicating bodies arbitrate the dispute subject to the rules set out in the “Dispute Settlement Understanding (DSU)”. The impact of the CPB therefore depends on the weight accorded to it in the DSU (p. 8-9; 356-357; 417).

24. The precautionary approach of Arts. 10 (6), 11 (8) CPB is not “stronger” than the one in Art. 5.7 SPS. In the CPB, precautionary measures are only to be triggered in cases in which the nature of a risk is already known. It only applies where scientific uncertainty about the extent of adverse effects exists. Most cases of Arts. 10 (6) and 11(8) are already covered by Art. 5.1 SPS (p. 374-379).
25. The precautionary approach of Art. 5.7 SPS is coupled with the requirement to seek to obtain the additional information necessary. Although this obligation is addressed to all members of the SPS Agreement, the dispute settlement bodies and scholars regard that obligation as exclusively addressing the country which actually invokes the precautionary approach. Art. 10 (6) CPB does not provide such an additional duty. Only if a third member state – after additional scientific or technical information has become available – makes an additional request to import, the party of import may have to review the decision pursuant to Art. 12 (3) CPB. However, the protocol does not distinguish whether the decision was taken as a precautionary measure pursuant to Art. 10 (6) CPB or not (p. 375-377).
26. The requirement to review a decision if so requested by a party of export according to Art. 12 (2) CPB applies only to LMOs, but not to FFP-LMOs as regulated in Art. 11 (6)-(8) CPB. This distinction is justifiable under Art. 5.6 SPS (p. 379).
27. Relying on the reports of the Appellate Body concerning the role of risk assessment within the SPS Agreement, a significant difference to the character of the protocol’s risk assessment / AIA procedure becomes apparent: Whereas Annex III (2) CPB indicates to carry out a risk assessment before taking a decision, the SPS Agreement permits – according to the interpretation of the Appellate Body – to introduce the relevant risk assessment until a dispute settlement procedure is initiated (p. 367-368).
28. According to Art. 15 (3) CPB, the notifier has to bear the costs of risk assessment if so requested by the party of import. However, costs for risk assessments carried out pursuant to Art. 11 (6)(a) CPB rest with the party of import. Taking into account that Art. 11 (6)(a) applies only for developing country parties or parties with an economy in transition, the lack of reimbursement may cause an unreasonably lower level of protection and therefore probably contradicts Art. 5.5 SPS. This presumption is backed by the fact that Art. 10.1 SPS explicitly requires members to acknowledge the special needs of developing country members (p. 379).

29. The requirement of Art. 18 (2)(a) CPB to include the remark “may contain” in the accompanying documentation of FFP-LMOs is a trade restrictive measure without any merit to those objects the protocol is supposed to protect. Hence, it does not conform to Arts. 5.5 and 5.6 SPS (p. 380-382).
30. The conflict of norms between provisions of the CPB and those of the SPS Agreement does not reflect insurmountable gaps between trade and environment. Rather, the cases of conflict point to deficiencies of the protocol whose alleviation would strengthen rather than weaken its aim. The application of the *lex posterior* rule in favour of the protocol would therefore not expand the protocol’s scope of protection (p. 412-416).
31. A comparison of the CPB with GATT 1994 provides similar results. Within Art. III:4 GATT, LMOs and non-LMOs are “like products”. The emerging opinion that a disease-causing consistency of a product (e.g. asbestos) is part of the physical component in the “like product” test justifying a distinction is generally not transferable to LMOs. The recourse to Art. XX (b) GATT leads to the same outcome as under the SPS Agreement (p. 392-409).
32. The impact of the CPB within a WTO dispute settlement procedure depends on the weight accorded to MEAs in the DSU. Hence, the fact that a WTO provision may be superseded by the CPB pursuant to the general rules of international law does not imply instantaneously the inapplicability of the pertinent WTO provision within the dispute settlement. Instead, the DSU suggests that the WTO adjudicating bodies have only a limited jurisdiction. They neither have the right to *apply* non-WTO law nor do they have the power to *suspend* WTO provisions that may have been superseded pursuant to general international law (p. 425-445).
33. The inability of WTO adjudicating bodies to apply non-WTO law does not mean that the dispute settlement mechanism of the WTO exists in a system hermetic to general international law. Instead, Art. 3 (2) DSU requires the WTO agreements to be interpreted in light of customary rules of interpretation. Those customary rules are reflected in Art. 31 of the Vienna Convention on the Law of Treaties (VCLT). In this context, it is of utmost importance to distinguish between the legal meaning of interpretation and of application. Hence, the influence of the CPB through Art. 3 (2) DSU is limited to clarifying the meaning of a specific term within a provision or the purpose of a provision. This impact of the CPB is further narrowed if the content of a relevant provision or term is clari-

fied by another covered agreement. For example, the broad and open terms of Art. XX (b) must already be interpreted in line with the provisions of the SPS Agreement in cases where sanitary and phytosanitary issues are involved (p. 445-456).

34. A remaining and uncontested impact of the CPB is a factual and not a legal one. In *US – Import Prohibition of Certain Shrimp and Shrimp Products*, the Appellate Body referred to CITES in order to clarify whether turtles are “exhaustible” resources in the meaning of Art. XX (g). However, the Appellate Body did not rely on the legal content of CITES but rather on the fact that the turtles in question were listed as an endangered species, therefore close to extinction and hence “exhaustible”. Similarly, the Appellate Body may regard the adoption of the Biosafety Protocol as a multilateral effort to find an acceptable solution as required by the *chapeau* of Art. XX GATT (p. 454-456).
35. Tariffs may be used as viable means to achieve the protocol’s goal in some cases. An effective restriction of trade in specific potentially harmful LMOs can be realised by the relisting of an LMO in a different tariff class on which a higher duty is imposed, compared to a comparable non-LMO product. As a consequence, the LMO product will lose its market share. Such a measure is not *per se* a violation of the *like product* doctrine, even if it is considered that LMOs and non-LMOs are like products in the sense of Art. III:4 GATT. As the Appellate Body has pointed out, the meaning of “like product” differs within the GATT depending on the different purpose of the provisions containing that term. Whereas the purpose of Art. III:4 is to guarantee equal market access for foreign and national products once tariffs have been paid at the border, the *like product* discussion within Art. I:1 GATT concerning the classification of tariffs decides which competitive disadvantage may be imposed on a foreign product through tariffs. Here, the government’s legitimate autonomy of decision comes into play as acknowledged by a panel: “[...] legitimate means of adapting the tariff scheme to each contracting party’s trade policy interests comprising [...] its protection needs[...]”. However, although tariffs may be legitimately used to partly achieve the aims of the protocol, they do not reflect the more flexible approach chosen by CPB through the AIA procedure (p. 461-468).
36. A trade restrictive environmental measure has a negative impact on the equilibrium of concessions. Rebalancing it is often seen as an inadmissible solution which sacrifices an effective environmental

protection. This controversy deepens if the environmental measure is based on the precautionary approach and does not yet prevent actual harm (p. 469-474).

37. The idea of adjusting an uneven balance of concessions – even if not caused by a prior violation of a WTO rule – emerges several times in the WTO system, under different aspects: Art. XXVIII GATT, the non-violation complaint according to Art. XXIII:1(b) GATT in connection with Art. 26 DSU, Art. 8 (3) Agreement on Safeguards and Art. 3 (b) Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994 require a readjustment if benefits have been nullified or impaired (p. 469-470).
38. The acceptance of the precautionary approach in international trade law may increase if an adjustment is envisaged similar to Art. 8 (3) Agreement on Safeguards: Where the precautionary action extends for a specified period of time and no additional scientific information has been provided, the other side is permitted to suspend substantially equivalent concessions (p. 473-474).