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植物检疫措施委员会

第十四届会议

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新发有害生物与紧急情况的概念 – (草案) – 《国际植保公约》在应对植物卫生紧急情况和新发有害生物方面的作用

议题 8.8

植检委主席团编写

I. 目的

1. 近期，缔约方代表提出多项关切，在不同场合参与了相关讨论，事关缔约方自身或其所在区域面临植物卫生紧急情况及/或新发有害生物问题时《国际植保公约》的作用。迄今为止，植物检疫措施委员会（植检委）就这个问题并未做出明确或全面的决定。本文旨在总结近期开展的讨论，阐述《国际植保公约》秘书处在发生植物卫生紧急情况及/或新发有害生物问题时可以发挥的潜在作用，解释秘书处在资源和职责方面面临的限制，同时也会说明缔约方自身的角色和责任，以及区域植物保护组织（区域植保组织）在各区域以及在植检委的预期角色。本文旨在推动植检委第十四届会议就此问题进一步开展系统性讨论，此外还包含了多项提案，供缔约方在植检委第十四届会议上做出初步决策。

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II. 在植检委第十四届会议上进一步开展系统性讨论的惠益

2. 植检委进一步讨论的目的是为新发有害生物以及植物卫生紧急情况的甄别和管理指明方向，讨论将：

- 制定明确标准，确立透明过程，并运用这些标准和过程甄别新发有害生物及植物卫生紧急情况；
- 明确界定《国际植保公约》秘书处、区域植保组织和缔约方在新发有害生物及植物卫生紧急情况管理方面的角色和责任；
- 支持资源的有效配置和运用，包括酌情运用《国际植保公约》秘书处的资源，以便协助并改进对新发有害生物及植物卫生紧急情况的管理。

III. 背景

3. 植检委第十一届和第十二届会议关于新发问题的讨论意见在 2016 年植检委主席团会议上以及 2016 年战略规划小组的会议上得到了进一步审议。植检委第十三届会议上围绕草地贪夜蛾 (*Spodoptera frugiperda*) 提出的关切在 2018 年 10 月植检委主席团会议和 2018 年 10 月战略规划小组会议上进行了审议。这些讨论的成果之一是明确提出要进一步厘清植检委与《国际植保公约》秘书处在植物卫生紧急情况中的作用。

4. 植检委第十三届会议以及后续领导机构会议的讨论涵盖了针对多个问题的建议和审议，包括植检委和秘书处应当如何响应紧急情况和新发有害生物疫情，《国际植保公约》在此情况下的职责是什么，以及是否需要或如何提供资源支持缔约方应对此类紧急情况。特别是，围绕《国际植保公约》秘书处的角色以及在此类情况下对秘书处资源的利用开展了深入讨论。另外，会议还提出要明确定义何为紧急情况，并要明确《国际植保公约》秘书处在此类情况中的角色。

5. 战略规划小组 2018 年会议再次承认，新发有害生物会给粮食安全带来严重威胁，但同时也强调《国际植保公约》秘书处的资金现在已经捉襟见肘，均已配置出去，粮农组织应为专项的有害生物相关行动和活动提供资源。为此，战略规划小组的一个成员强调，要充分认识到粮农组织在新发有害生物方面的角色和活动，思考如何厘清并支持《国际植保公约》与粮农组织互为补充的作用。同样，会议也强调要界定需要《国际植保公约》关注的新发有害生物的定义。

6. 2018 年 10 月，主席团会议决定进一步推动植检委关于《国际植保公约》在新发有害生物方面角色的讨论，也可以结合《国际植保公约》在新发有害生物方面的更大范围活动开展综合讨论。主席团还表示，战略规划小组、主席团直至植检委均应就秘书处如何参与响应紧急情况提出明确立场，做出清晰决策。

在 10 月份的会议上，主席团成员还提出，植检委应考虑植物卫生紧急情况和新发有害生物的长期和短期视角，确保所有提案和决策都关联到《国际植保公约》的战略框架。

7. 伴随着这些讨论的是一项由来已久的关切，即《国际植保公约》秘书处的资源相对各种目的和活动来说非常有限；认识到在讨论是否需要或如何分配这些资源支持开展紧急情况和新发有害生物相关活动时必须将这一点纳入考虑。

IV. 角色和职责

8. 植物卫生紧急情况和新发有害生物不但会给缔约方和各区域的植物资源、作物生产、林业和粮食安全造成损害，同时也会严重干扰受影响地区生产的植物和植物产品的国际贸易。《国际植保公约》的根本作用之一是促进安全贸易，修订后的战略框架草案中也承认了这一作用。因此，植物卫生紧急情况和新发有害生物对贸易的潜在影响是审议更大规模《国际植保公约》社区和《国际植保公约》秘书处在这方面角色时应当考虑的一个相关因素。

9. 2018 年，主席团强调，在《公约》框架下，各缔约方有义务相互协调与合作，共同防范有害生物扩散，另外还要就此分享信息^[1]；但与会人员提出，尽管《国际植保公约》规定了此项义务，但如草地贪夜蛾开始扩散时，虽然植检委第十二届会议已经提出关切，但缔约方却并未提供官方报告。一位与会人员表示，汲取草地贪夜蛾案例的经验教训非常重要（包括如何进行沟通），并要把这些经验教训运用到之后的审议和决策之中。

10. 2017 年 6 月，主席团提出了关于新发有害生物的新的信息共享安排，即由区域植保组织在秘书处的协调下每季度召开会议，讨论新发有害生物，决定此类疫情是全球性还是区域性的，确定可以采取的行动，并为缔约方提出建议。

V. 考虑

11. 附件 1 节选了《国际植保公约》《新修订文本》中关于植物卫生紧急情况、新发有害生物及潜在响应行动的相关条款或部分内容。

12. 需要强调的是，《国际植保公约》秘书处的资源十分有限，缔约方普遍认为秘书处资源不足以支持其可持续开展核心工作。因此，秘书处眼下没有资源可用来支持缔约方响应有害生物紧急情况。调拨资金支持此类活动将会造成现有核心工作的延误或中断。

[1] 《国际植物保护公约》第 VII 条和第 VIII 条

13. 2018 年区域植保组织技术磋商会上围绕新发有害生物提出的观点包括：
- 新发有害生物工作重点应当放在预防上面；
 - 围绕这项重要主题开展的工作是一项重要举措，可为各区域植保组织提供开发和进一步测试的平台；
 - 相互协作应当成为围绕被确定为新发有害生物开展活动的最基本要求；
 - 这项工作需要区域植保组织与其他机构，特别是研究机构，协力推进；
 - 《国际植保公约》秘书处与区域植保组织应各自发挥有所区别、互为补充的作用；
 - 区域植保组织应继续积极分享关于新发有害生物的信息，同时就各自的适当角色继续开展讨论；
 - 这项主题应纳入 2019 年区域植保组织技术磋商会的议程。
14. 2018 年区域植保组织技术磋商会上提交了一篇关于新发有害生物的论文，该论文已根据技术磋商会上的意见进行了更新，附载在附件 II 中。附载的新发有害生物论文应结合植检委报告阅读，因为植检委报告中介绍了相关术语潜在定义的重要背景，也说明了确定《国际植保公约》和区域植保组织在新发有害生物方面职责范围的相关考虑。新发有害生物文章中特别值得注意的是关于协调行动的意见，文中提出这是新发有害生物方面最基本的响应，不一定需要由《国际植保公约》秘书处牵头。
15. 界定“新发有害生物”定义现已纳入了术语表技术小组的工作计划。术语表技术小组 2018 年会议编写了“新发有害生物”的定义草案，将提交指导委员会审议。术语表技术小组考虑了主席团编写的“植物卫生紧急情况”定义草案。

VI. 活动、建议及拟议方法

16. 2018 年战略规划小组会议提出的一项建议是提高志向，考虑将《国际植保公约》打造成“世界植物卫生组织”，让《国际植保公约》承担更多职责，如负责目前由粮农组织开展的特定有害生物防治活动，当然也要吸引必要的资源。但是，会议也承认，这样《国际植保公约》的职能和角色就会发生重大转变，且目前《国际植保公约》尚未开展过具体的有害生物响应活动。因此，这项建议还需更加深入的讨论、分析和审议。会议提出，若有意促成这一目标，则计划于 2020 年与“国际植物健康年”同步召开的植检委部长级会议可以作为一个理想的讨论场合。

17. 2018 年，主席团忆及新发有害生物问题和《国际植保公约》行动已在 2017 年主席团会议上进行了讨论，当时要求区域植保组织技术磋商会建立相关进程，甄别新发有害生物，协调共同响应。这项工作正在推进，包括确定需要采取国际行动的新发有害生物的范围。需要指出的是，近期区域植保组织技术磋商会已将“新发有害生物”作为常设议题纳入了年度会议的议程。

18. 具体到草地贪夜蛾，自植检委第十三届会议之后，粮农组织其他地区已经完全知晓了这一问题，并筹集了资源支持区域响应行动。一位主席团成员表示，《国际植保公约》秘书处应开展研究，了解粮农组织内部有哪些司参与了缔约方可能关注、但又不一定完全在《国际植保公约》职责范围内的紧急情况响应，确保粮农组织的所有资源和活动都能为缔约方了解。

19. 主席团认为，关于植检委第十三届会议上提出的草地贪夜蛾情况，秘书处没有充足的资源来对缔约方提出的关切予以立即响应，另外也要强调缔约方有义务根据《公约》尽早报告此类情况。在这方面，主席团认为，将紧急情况和/或新发有害生物设为植检委议程中的常设议题非常有用，也很重要。

20. 就秘书处参与应对紧急情况和新发有害生物疫情以及利用秘书处资源来说，主席团表示，主席团应该参与所有为应对紧急情况而需要重新分配资金或重新排列活动先后次序的决定。在此类情况下，可召开主席团临时会议（实体或虚拟形式，视具体情况而定），确保时间或资金得到适当的使用。

21. 在国际贸易方面，世贸组织目前正在执行一个项目，重点研究自然灾害对贸易的影响。项目的总体目标是了解地球物理和气象事件对贸易的影响，以及可能影响灾害响应、恢复与抵御力（包括风险防范）的贸易问题类型。另外，在提供救济物资和更换繁殖材料过程中可能出现的植物卫生风险也得到了承认。受灾地区植物和植物产品出口的市场准入限制也被纳入了项目研究范围。视世贸组织项目的发现和成果以及植检委的意见，现有很多机会可同世贸组织开展合作，推动植物卫生紧急情况和新发有害生物方面的讨论，确定《国际植保公约》在这方面的潜在作用。

22. 另外，在 2018 年联合主题征集活动中，任务小组提议围绕自然灾害救助相关的植物卫生风险管理编制植检委建议。

23. 明晰的术语对于推动这一主题的讨论非常重要。2018 年战略规划小组会议也强调，要界定相关术语的定义，形成定义的过程本身就会为明确《国际植保公约》在植物卫生紧急情况和新发有害生物疫情方面的作用提供进一步的参考，确保在这方面做出的所有决定都有更加明确的意义和目的。为此，2016 年，主席团建议编制“植物卫生紧急情况”的术语库定义，但此项工作未能如期推进。在植检委第十三届会议讨论之后，标准委员会将“新发有害生物”的定义编写工作纳入了术语表技术小组的工作计划。术语表技术小组 2018 年会议编写了“新发有害生物”的定义草案，将提交指导委员会审议。

VII. 提议植检委第十四届会议讨论的重点问题

24. 基于植检委、主席团、区域植保组织技术磋商会以及战略规划小组往届会议的讨论，以下问题可在植检委第十四届会议上开展重点讨论：

- 哪些类型的紧急情况可以考虑利用或重新配置《国际植保公约》秘书处的资源？资源的潜在分配应当受到哪些限制？在这方面，之前有建议提出《国际植保公约》秘书处资源的使用应当限定在以下用途：
 - 《公约》职责范围内以及在秘书处现有资源和技术能力范围内开展的活动；
 - 支持或解决由《国际植保公约》秘书处负责的一项活动或一个系统问题；这项活动或系统发生意外受挫，会给《国际植保公约》的工作计划带来不利影响；
 - 损害缔约方植物资源或危及国家和/或区域范围内濒危区域的紧急情况或新发有害生物疫情，《国际植保公约》秘书处可促进信息共享或协调开展行动；
 - 经植检委批准，开发并实施一个新的区域有害生物紧急情况系统，由《国际植保公约》秘书处负责。
- 在此类紧急情况下，秘书处是否应当召集主席团临时会议，讨论并视需要批准资金的重新分配和/或重新排列秘书处各项工作的先后次序，以便响应紧急情况？如若不然，哪种治理模式更为适合？
- 在秘书处资源能力或《国际植保公约》职责范围之外的情况是否可以作为重新分配资金或重新安排工作先后次序的理由？
- 是否可以考虑其他的非秘书处参与、或合作性的方法？如，是不是区域植保组织更适合牵头或协调推动各国协作，共同响应紧急情况或新发有害生物疫情？（说明，这方面可参考《公约》第 IX 条的相关规定和 2018 年区域植保组织技术磋商会的附载论文。）
- 同样，进一步加强与粮农组织和世贸组织等其他国际组织合作有哪些机遇？

VIII. 建议植检委第十四届会议做出的决定

25. 视全体讨论中可能出现的需要决策的其他建议，请植检委做出以下初步决定，以期改进新发有害生物方面的信息共享，满足《公约》第 VIII 条中的要求：

- 1) 要求《国际植保公约》秘书处与粮农组织负责紧急情况和新发有害生物的司合作，澄清目前可为缔约方提供哪些类型、哪个层面上的支持。

- 2) 确认将新发有害生物疫情最新情况作为常设议题纳入植检委员会议程。
- 3) 说明，针对植检委员会常设议题提交的报告和做出的陈述应：
 - 着眼于区域性的或有可能影响整个区域的有害生物疫情；
 - 确定造成或预期造成损害的性质，面临风险的植物资源，受威胁的地区以及其他的植物卫生、环境或经济影响；
 - 说明已经采取了哪些措施，这些措施产生了哪些结果；
 - 说明粮农组织及其他国际组织在应对疫情方面发挥或计划发挥的作用；
 - 厘清粮农组织、《国际植保公约》秘书处或区域植保组织在帮助缔约方响应疫情方面的各自作用。
- 4) 注意到，缔约方可通过多方捐赠信托基金捐赠专项预算外资金，支持秘书处开展通过此项常设议题确定的活动。

ANNEX I: Articles in the IPPC's New Revised Text relating to plant health emergencies, emerging pests, and prospective responses to them:

ARTICLE IV General provisions relating to the organizational arrangements for national plant protection

2. The responsibilities of an official national plant protection organization shall include the following:
 - b) the surveillance of growing plants, including both areas under cultivation (inter alia fields, plantations, nurseries, gardens, greenhouses and laboratories) and wild flora, and of plants and plant products in storage or in transportation, particularly with the object of reporting the occurrence, outbreak and spread of pests, and of controlling those pests, including the reporting referred to under Article VIII paragraph 1(a);

ARTICLE VII Requirements in relation to imports

6. Nothing in this Article shall prevent any contracting party from taking appropriate emergency action on the detection of a pest posing a potential threat to its territories or the report of such a detection. Any such action shall be evaluated as soon as possible to ensure that its continuance is justified. The action taken shall be immediately reported to contracting parties concerned, the Secretary, and any regional plant protection organization of which the contracting party is a member.

ARTICLE VIII International cooperation

1. The contracting parties shall cooperate with one another to the fullest practicable extent in achieving the aims of this Convention, and shall in particular:
 - a) cooperate in the exchange of information on plant pests, particularly the reporting of the occurrence, outbreak or spread of pests that may be of immediate or potential danger, in accordance with such procedures as may be established by the Commission;
 - b) participate, in so far as is practicable, in any special campaigns for combatting pests that may seriously threaten crop production and need international action to meet the emergencies; and
 - c) cooperate, to the extent practicable, in providing technical and biological information necessary for pest risk analysis.
2. Each contracting party shall designate a contact point for the exchange of information connected with the implementation of this Convention

ARTICLE IX Regional plant protection organizations

2. The regional plant protection organizations shall function as the coordinating bodies in the areas covered, shall participate in various activities to achieve the objectives of this Convention and, where appropriate, shall gather and disseminate information.
3. The regional plant protection organizations shall cooperate with the Secretary in achieving the objectives of the Convention and, where appropriate, cooperate with the Secretary and the Commission in developing international standards.
4. The Secretary will convene regular Technical Consultations of representatives of regional plant protection organizations to:
 - b) encourage inter-regional cooperation in promoting harmonized phytosanitary measures for controlling pests and in preventing their spread and/or introduction.

ARTICLE XI Commission on Phytosanitary Measures

1. Contracting parties agree to establish the Commission on Phytosanitary Measures within the framework of the Food and Agriculture Organization of the United Nations (FAO).
2. The functions of the Commission shall be to promote the full implementation of the objectives of the Convention and, in particular, to:
 - a) review the state of plant protection in the world and the need for action to control the international spread of pests and their introduction into endangered areas;

ARTICLE XX Technical assistance

The contracting parties agree to promote the provision of technical assistance to contracting parties, especially those that are developing contracting parties, either bilaterally or through the appropriate international organizations, with the objective of facilitating the implementation of this Convention

ANNEX II: Emerging pests: paper prepared by the Director General of the European and Mediterranean Plant Protection Organisation and amended following 2018 TC-RPPO meeting

1. Summary

[1] There is a gap between ambitions for a world plant health organisation and the current reality of small teams working with limited resources to develop and implement international and regional standards for phytosanitary measures. The questions around emerging pests - what they are and who should be doing what about them - must be answered at a global level if we are to decide whether and how to fill that gap. This paper will suggest that:

- The CPM Bureau has previously proposed useful criteria for defining emerging pests but the interaction between these criteria needs to be further discussed to see if it is possible to identify a limited list of a few ‘priority emerging pests’ at global level;
- A pest may be an emerging pest independently of whether, where and how it is regulated;
- The remit of the IPPC, and most RPPOs and NPPOs, extends beyond regulated pests and in principle may include emerging pests which are not regulated;
- In the absence of substantial additional resources, if those bodies take responsibility for emerging pests they risk spreading their efforts too thinly and being able to do nothing well;
- Not all emerging pests can have the same priority for co-ordinated action at global or regional level
- Even with limited resources, a process analogous to a simple form of Pest Risk Analysis could be used to identify ‘priority emerging pests’, and suggest appropriate risk management actions, responsible partners for those actions and potential coordinators.
- Expert judgement will remain an important part of deciding whether a pest is likely to become an increasing problem and whether co-ordinated action against it (globally or regionally) is required.

2. Background

[2] The terms ‘emerging pest’, ‘emerging risk’ and ‘emerging pest risk’ are being used increasingly in the IPPC community. However there is no agreed-upon definition, nor a common understanding of the role with regard to such pests of the IPPC, RPPOs and NPPOs. At the 29th (2017) TC, it was agreed that NAPPO (on behalf of all RPPOs) would prepare a request to the TPG for developing a definition of ‘emerging pest’ and that RPPOs would share at the 30th TC their thoughts and experience on methods which might be used to assess whether organisms qualify as emerging pests. The IPPC Secretariat asked for a paper to be developed on the issue of emerging pests for discussion at the SPG in October 2018. The concept of ‘emerging pest risks’ also appears in the draft IPPC Strategic Framework for 2020-2030, which will be discussed at the same meeting.

3. Definitions

[3] The TPG has been asked to consider developing a definition for ‘emerging pest’ for inclusion in the Glossary of Phytosanitary Terms. Some points can be made even before there is an agreed definition.

[4] ‘Emerging’ is an inherently temporary status and logically cannot continue indefinitely. However, a pest may ‘emerge’ in a region long after it has finished ‘emerging’ in another region and has become a routine problem managed by routine controls. For example when EPPO was developing recommendations for Japanese beetle (*Popillia japonica*) to address a recent outbreak in Europe, reference was made to experience in North America nearly a hundred years previously. So, an organism may be an ‘emerging pest’ nationally, regionally or globally.

- [5] Another important point is that an emerging pest may or may not qualify as a regulated pest. The criteria are independent and have a different conceptual basis. It would therefore be possible to propose and populate a matrix as follows, with some organisms in each of the six cells:

	Quarantine Pest	RNQP	Not QP or RNQP
Emerging Pest			
Not Emerging Pest			

- [6] This could be done for any geographical area, except that in principle an organism is unlikely to be a quarantine pest in its area of origin.

- [7] In developing a paper for the 27th TC, EPPO and NAPPO concluded that the linked term ‘priority pests’ is only meaningful in relation to the resources for which such a pest has priority. Without resources there is no point in priorities. The combined term ‘priority emerging pests’ has been introduced in this paper.

- [8] The concept of ‘emerging risks’ is broader than emerging pests, and relevant in many disciplines. The European Food Safety Agency defines an ‘emerging risk’ to human, animal and/or plant health as ‘a risk resulting:

- (i) from a newly identified hazard to which significant exposure may occur or
- (ii) from an unexpected new or increased significant exposure or susceptibility to a known hazard’.

- [9] Adapting that definition to the plant health sector, EFSA have defined an ‘emerging plant health risk’ as ‘a risk resulting:

- (i) from a newly identified plant pest for which a significant probability of introduction and/or spread may occur, or
- (ii) from an unexpected new or increased significant probability of introduction and/or spread of an already known plant pest (e.g. a new or a modified pathway of introduction, a change in agriculture or forestry practice, a change in pest/disease management or the cultivation of a new crop), or
- (iii) from a new or an increased susceptibility of the host plants to a known plant pest’.

(Pautasso et al. 2015)

- [10] Thus an ‘emerging risk’ to plant health might arise from an emerging pest, a new pathway, a newly created vulnerability such as widespread planting of a susceptible cultivar, withdrawal/loss of an effective control method, or development of increased pest resistance to a control method.

4. Remit

[11] The 1951 text of the IPPC included:

Article VII INTERNATIONAL CO-OPERATION

...

a) Each contracting Government agrees to co-operate with FAO in the establishment of a world reporting service on plant diseases and pests, making full use of the facilities and services of existing organizations for this purpose, and, when this is established, to furnish to FAO periodically the following information: (i) reports on the occurrence, outbreak and spread of economically important pests and diseases of plants and plant products which may be of immediate or potential danger; (ii) information on means found to be effective in controlling the pests and diseases of plants and plant products. b) Each contracting Government shall, as far as is practicable, participate in any special campaigns for combating *particular destructive pests or diseases which may seriously threaten crop production and need international action to meet the emergencies*. (emphasis is mine here and in other extracts below)

[12] Even in 1951 the IPPC scope mentioned a ‘particular reference to pests and diseases of importance to international trade’. However changes to the IPPC in 1997, consequent on the WTO SPS Agreement, shifted the focus still further on to technical justification at a national level for phytosanitary measures applied to trade pathways. This change coincided with the allocation for the first time of significant resources to the IPPC. The 1997 IPPC still included a broader ambition to secure ‘common and effective action to prevent the spread and introduction of pests of plants and plant products, *and to promote appropriate measures for their control*’, but the IPPC Secretariat has never been resourced to fulfil that ambition.

[13] The IPPC Strategic Framework for 2012-2019 included the following paragraph:

A core contribution of the IPPC to managing these global challenges is developing and maintaining an effective and credible forum where plant protection officials can communicate, debate, and cooperate in joint actions and measures to address long term and *newly emerging global plant health issues*.

[14] On the other hand, the IPPC Secretariat Enhancement Evaluation in 2015 reported the views of the OIE (the World Organisation for Animal Health) as follows:

202. IPPC actively sought input from Codex and OIE for improving the standard setting process by involving them in the Focus Group on Improving the IPPC Standard Setting Process (July, 2011). Although OIE admires the very thorough and solid process of standard setting in IPPC, they also think it is quite rigid and time consuming, making it very difficult to quickly agree to a *harmonized response addressing an emerging plant health risk* and rapidly including latest scientific insights in the approved standards.

[15] Turning to the regional level, each RPPO has a different remit according to its constitution, but it is clear from discussions in the TC that these go well beyond assisting member countries with setting and implementing trade related measures. All RPPOs do some scanning of the horizon for new and emerging risks. EPPO’s activities in this respect, as just one example, are described in Pautasso et al. (2015). EPPO has maintained an ‘Alert List’ since 1999 to draw the attention of EPPO member countries to certain pests possibly presenting a risk to them and to achieve early warning. Organisms can be entered rapidly onto this list following analysis of new information by the Information Officer. The list is also used by EPPO to select candidates which may be submitted to a full Pest Risk Analysis (PRA). The current version of the EPPO ‘Alert List’ is at

https://www.eppo.int/ACTIVITIES/quarantine_activities.

- [16] Within the EPPO region, at about the same time as the changes to the IPPC, phytosanitary services in EU countries were adapting to the introduction of the EU Single Market. This led to a different approach to risk management with less emphasis on national PRAs and measures at borders between EU countries and more on a regionally co-ordinated management of emerging plant health risks, in many cases on the basis of EPPO PRAs and Standards. Such regional co-ordination can address all pathways, not just international trade. For example, natural spread can be restricted through containment measures in buffer zones and suppression in adjoining infested areas.
- [17] Other RPPOs, for example NAPPO, also work on co-ordinated approaches to emerging pests, such as contingency planning, factsheets, information exchange, surveillance plans, research co-ordination and workshops. Presentations from the 2017 TC with RPPO lists of emerging pests and related activities are available at <https://www.ippc.int/en/core-activities/external-cooperation/partners/technical-consultation-among-rppos/2017-29th-tc-among-rppos-1/>. *Fusarium oxysporum* Tropical Race 4 was mentioned by seven of the ten RPPOs as an emerging risk. Huanglongbing and *Tuta absoluta* were both mentioned by three RPPOs, Cassava mosaic virus, Khapra beetle, banana bunchy top and *Xylella fastidiosa* by two.

5. Resources

- [18] The CPM Bureau meeting, in June 2017, recorded that:

... in general IPPC focuses on quarantine pests and is seen as mainly standard setting organization while dealing with emerging issues or pests as a new role for IPPC would require major time investment and funding. Taking that into account, the Bureau agreed that *RPPOs should be given a major role in identifying emerging issues* from information solicited in their region, which should be coordinated at the TC-RPPOs level and then reported after their selection and prioritization to the CPM.

The Bureau decided that a new arrangement for processing emerging issues would be that RPPOs have a quarterly conference coordinated by the IPPC Secretariat to discuss emerging issues and decide if they are global or regional in nature, and to identify possible (individual or coordinated) actions and recommendations to contracting parties (establishment of surveillance, sharing of PRAs, etc.). The Secretariat will engage with the TC Chair and discuss these proposed arrangements for discussion by the SPG and TC-RPPOs at the end of October for decision at the CPM 13 (2018).

- [19] It is not clear in the first sentence of this extract whether the ‘focus’ refers to the IPPC as a document, or to the IPPC governance through which contracting parties have agreed (for good reasons) to focus resources on this aspect of the IPPC remit, partly by adopting a narrower interpretation of the term ‘phytosanitary measure’ than in Article II of the IPPC.
- [20] The RPPOs are willing within their respective remits to help identify and address the risks from emerging pests, but ‘giving [them] a major role’ does not solve the resource problem, which is a constraint also at RPPO level. The idea of some form of quarterly contact to pick up emerging pest risks is sound but requires central resourcing to drive the process, and some clarity as to how RPPOs identify emerging pest risks and how the network of IPPC, RPPOs, NPPOs and others can then respond.

6. Criteria and Assessment

[21] The Bureau meeting in June 2017 suggested that pests that:

- had made a continental jump
- have a wide host range and where hosts are widely distributed
- have large potential for damage and economic loss across continents
- [show] evidence of a shift in the risk
- have an impact on natural environment as well as on production
- have an ability for crop destruction and the ability to eliminate entire production areas.

[22] could qualify as emerging pests. The examples they proposed were *Tuta absoluta* and pine wood nematode (*Bursaphelenchus xylophilus*). It is not clear from the Bureau report how the different criteria were intended to interact. If all criteria must be met then few if any organisms would qualify. If only one of the criteria has to be satisfied there could be several hundred candidates. A decision tree or scoring matrix is needed to apply the criteria in practice to produce a manageable list of a few emerging pests at global level. The scheme on the following page is intended as an example of the sort of approach which might be tried. It is intended to supplement and support rather than to replace expert judgements on which pests are likely to pose most risk globally or regionally, and which pests might have priority for co-ordinated action against them at global or regional level. The 30th TC-RPPOs agreed that RPPOs would prepare to test this scheme with possible candidate pests at the 31st TC, but would meanwhile continue to share information on emerging pests and risks.

[23] Factors other than those identified by the Bureau could be incorporated. For example, for an organism to be a globally emerging pest, it might be considered a requirement that it poses a threat to at least two continents. At the 30th TC RPPOs it was agreed that social factors should be considered alongside economic and environmental (citing the example of the impact of *Xylella fastidiosa* in communities with a long tradition of olive cultivation). It was also agreed that a slightly adapted version might be used for assessment of emerging pests at regional level, but that because of wide variations in land area and population the threshold figures would be different for each region.

[24] A pest may be identified as a possible ‘emerging pest’ at regional or global level, for example through an RPPO Alert List. Relevant evidence may come from official reports of geographical spread or changing impact, scientific literature or press reports, or from sentinel plant networks, for example.

[25] Once identified as an ‘emerging pest’ it could be subjected to an analysis to confirm (or not) whether it is a ‘priority emerging pest’ by assessing its risks relative to other ‘emerging pests’ and to identify potential risk management options. This would not be ‘Pest Risk Analysis’ in the narrow sense of the agreed interpretation in ISPM5, but could use some of the questions posed and information gathered in the course of a PRA carried out according to ISPM11. There is a hint of this broader approach in ISPM2 which refers to ‘- hazards identified outside the scope of the IPPC and to be communicated to other authorities.’ Like a pest-specific PRA, it would be at the taxonomic level of species but could be at a higher or lower taxonomic level if justified. The process would have to be fit for purpose and proportionate to the amount of resources available against priority emerging pests.

[26] Some of the key features and sometimes differences from PRA would be:

- The analysis would be carried out at global or regional level
- The analysis would specifically compare risks to enable prioritisation between pests
- Risk management would cover not only possible phytosanitary measures (in the narrow sense) but also needs for:

- Research
- Guidance
- Communications materials
- Accessible and effective control methods
- Biological control options
- Plant breeding responses
- The analysis would identify potential partners and stakeholders for co-ordinated action against the pest and a potential co-ordinating body
- The analysis would be subject to some form of consultation

7. Co-ordination

[27] The minimum response to a priority emerging pest would be to co-ordinate the action being taken against it by different bodies and stakeholders. If there are no resources to do the co-ordination, or no resources to carry out actions to be co-ordinated, there is no point in identifying priority emerging pests. Co-ordination of action against a priority emerging pest would not necessarily be done by the IPPC Secretariat, though the IPPC Secretariat and relevant RPPOs should be involved in the network to ensure that phytosanitary aspects (in the narrow sense) are taken fully into account.

[28] Others who might carry out co-ordination could include:

- RPPOs
- NPPOs
- FAO Divisions or Regions
- CABI
- CGIAR associated institutes
- Charitable foundations
- Grower and commodity organisations

[29] Participation in the co-ordinated action could be open, with appropriate safeguards against conflicts of interest, to:

- Plant breeding companies
- Crop protection companies
- Biological control manufacturers
- Academic researchers

[30] Many of the existing mechanisms for supporting national action against regulated pests could also be relevant against priority emerging pests, for example datasheets, diagnostic protocols, workshops for sharing experience, standards for testing efficacy of controls. So although resources would be required to carry out any of these actions, it would not always be necessary to establish new mechanisms.

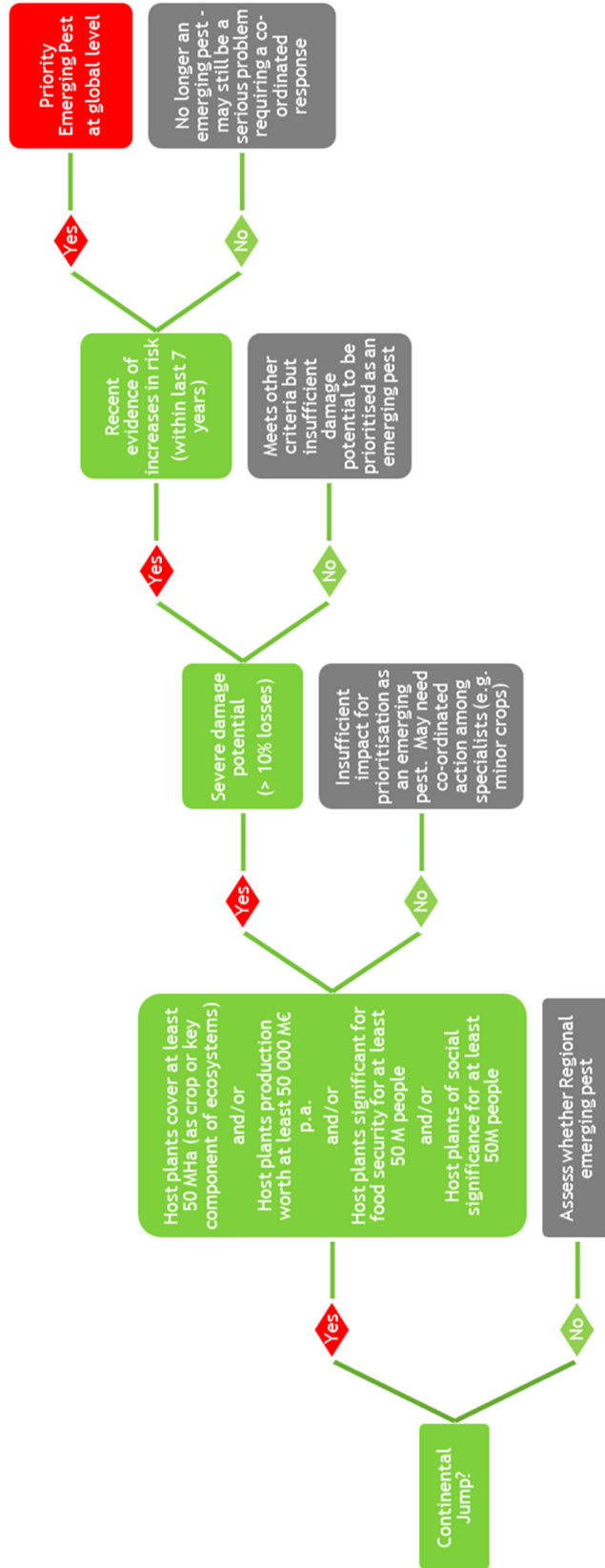
8. Conclusions

[31] It is only useful to identify emerging pests if resources are available to co-ordinate action against them globally or regionally. Pest risk analysis (in the ordinary sense of the words) could be used to assess risks and identify possible risk management options against emerging pests. Any proposed scheme for doing this could be tested against benefits which it might have achieved had it been in place to address recently emerged pests (which are still emerging in some regions) such as *Tuta absoluta*, *Halyomorpha halys*,

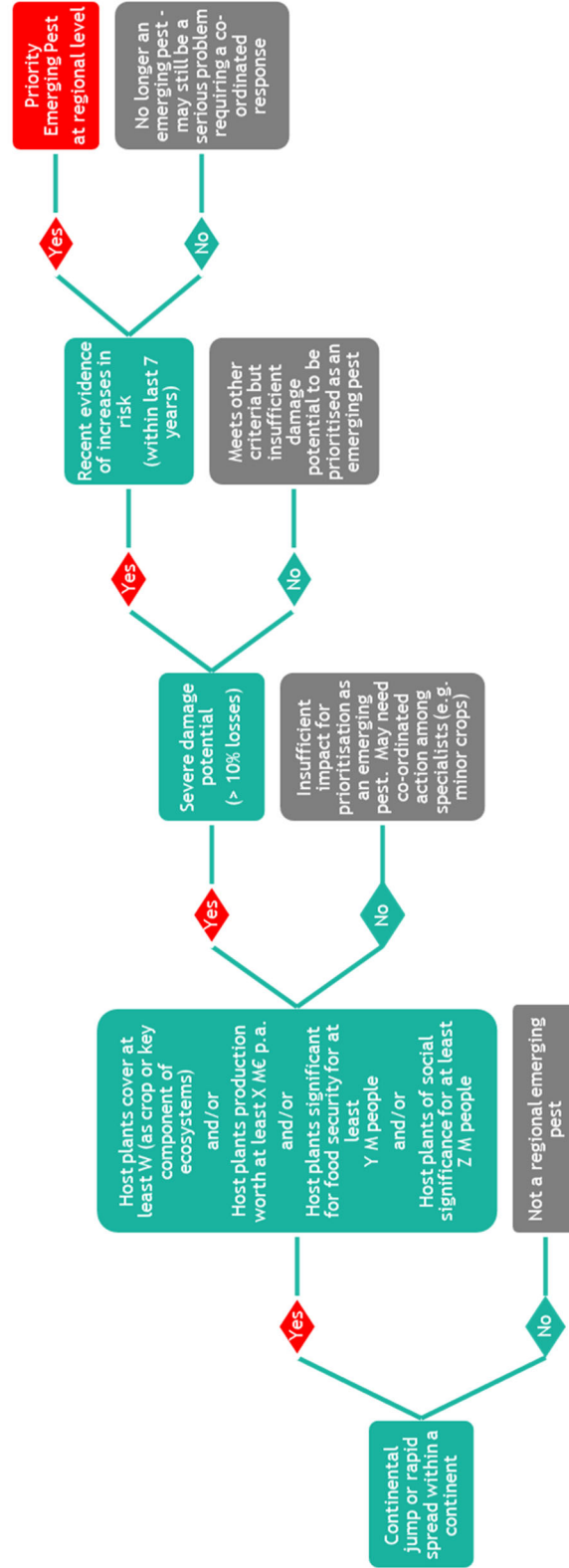
Drosophila suzukii and *Spodoptera frugiperda*. Before considering any more complex scheme of analysis for this purpose a simple decision tree has been elaborated based on the criteria identified by the Bureau. This will be tested on candidate organisms by RPPOs during the 31st TC-RPPOs.

9. Reference

Pautasso M, Petter F, Rortais A and Roy A-S (2015) Emerging risks to plant health: a European perspective
CAB Reviews 2015 10, No. 021.



A possible Decision Tree for a global "priority emerging pest"



A possible Decision Tree for a regional "priority emerging pest"