Distr.: General
12 June 2012

Original: English

Economic Commission for Europe

Committee on Trade

Fifth session
18 -19 June 2012
Item 10 of the provisional agenda

Traceability in support of efficient, safe and secure global supply chains

Note by the secretariat

Summary

At its fourth session, in 2011, the Committee on Trade was requested to advise member States on the relevance of topical issues addressed by its subsidiary bodies to trade-development efforts in the UNECE region. In response to this request, the Bureau of the Committee decided to organize on 19 June a round-table discussion on traceability in support of efficient, safe and secure global supply chains.

This background note highlights some of the issues that the speakers may wish to address as they bring forward topical concerns and views from their respective sectors. Member States are invited to review the recommendations and conclusions of the roundtable and advise the Committee and its subsidiary bodies on the issues for inclusion in their programmes of work and report to the Committee at its sixth session.

Introduction

1. The ever-increasing complexity of supply chains has brought into the spotlight the issue of traceability. Traceability means the ability to trace, by means of recorded information, the source of the different ingredients that went into a final product and their movement along the various stages of production, processing and distribution. Essentially, it's about ensuring transparency throughout the supply chain to establish mutual trust and confidence among the people involved, and for enabling consumers to make informed decisions.

2. Although mainly associated with food safety, traceability relates to a range of social and environmental issues, including fair trade and greening the economy. It also addresses several concerns, particularly those related to improving product quality; refining end-to-end supply-chain management; mitigating risks; as well as supporting technical regulations and quality-assurance systems.

3. This assortment of subject areas and uses has engendered a heated debate over how best to promote traceability and what kind of role governments should play. For example, if traceability is introduced as a requirement, then for what purpose? Which aspects of the supply chain should be included in traceability systems? If environmental aspects are deemed crucial, then what should be the minimum information requirements? [1]

4. There are also growing concerns over the limited involvement of consumers in the debate, with traceability systems predominantly geared to generate information that is of interest to the actors in the supply chain. The consumer does not have access to all information, and available information tends to be technical and doesn't adequately cover ethical concerns.

5. These concerns relate not only to protecting public health and safety but also to the ethical values underpinning production, processing and distribution practices and the broader conditions under which a good is produced.[2] Consumers are concerned, for instance, about child labour, workplace safety and the protection of endangered animal species. Meeting those concerns can restore, rebuild and maintain the trust of consumers in complex food chains.

6. The Committee on Trade's round-table discussion on "Traceability in support of efficient, safe and secure global supply chain" will focus on some of these challenges. It will bring together experts from academia, as well as from the Committee's three subsidiary bodies: the United Nations Centre for Trade Facilitation and Electronic Business; the Working Party on Agricultural Quality Standards; and the Working Party on Regulatory Cooperation and Standardization Policies.

I. Key issues

7. This session seeks to highlight the implications of strengthening traceability for governments and businesses in terms of costs, benefits and success requirements. The discussion will focus on areas including: new information and communication technology (ICT) solutions for supporting traceability; harnessing regulatory cooperation,

[1] On this point, see Morrison C. (2003) "Traceability in Food Processing: an Introduction"; in Lees, M. (ed.) *Food Authenticity and Traceability.* Cambridge: Woodhead Publishing Limited, pp.457-472.

[2] For a detailed discussion of ethical traceability, see Coff, C., Barling, D., Korthals, M. (2009) *Ethical Traceability in Communicating Food*. Dordrecht: Springer.

standardization and quality-assurance systems to improve traceability; and the contribution of agricultural quality standards to traceability.

A. Information and communication technology solutions

8. Continuous advancements in ICT have enabled the development of optical as well as digital systems for tracking the movement of products along the supply chain. These systems include bar codes and radio frequency identification (RIFD) tags that can be implanted in, or attached to, a product from the start of the production process.

9. However, these tools fall short of keeping pace with international supply chains, which are becoming increasingly sophisticated in terms of both geographical coverage and range of actors. Bar codes can only capture certain aspects of supply chain operations, and do not allow for complete upstream and downstream tracing. While the RFID tags offer a more thorough tracing system, they may not be effective in complex supply chains, where raw materials change hands several times and get mixed with supplies from multiple sources. Then there is the growing need to develop new ICT solutions for supporting ethical traceability. This includes solutions for communicating with consumers about their interests in traceability and preferences with respect to information that they should receive so that they can make informed choices.

10. Thus, while much has been done in the area of ICT solutions for supporting traceability, the ever-increasing complexity of international supply chains leaves more to be desired in relation to the breadth (i.e. type of information), depth (i.e. upstream and downstream tracing) as well as the precision (i.e. the degree of assurance with which a system can capture product movements and characteristics) of traceability systems. How can we address this need without burdening businesses and regulators?

B. Regulatory cooperation, standardization and quality assurance

11. Traceability requirements are already enshrined in internationally recognized regulatory systems. For example, the International Organization for Standardization (ISO) 9001:2008 for Quality Management Systems requires firms to trace their products by suitable means “throughout product realization” (including received product and in-process product, as well as final product) and to maintain all records associated with product traceability.[3] Yet another example is ISO 20000:2005 for Information Technology Service Management, which offers a comprehensive IT framework for tracking and registering the different stages of service delivery. In the area of feed and food, ISO 22005:2007 for Traceability in the Feed and Food Chain establishes the principles and requirements for designing and implementing a traceability system. Then there’s ISO 26000:2010 “Guidance on Social responsibility”, which sets out seven principles of social responsibility: accountability; transparency; ethical behaviour; respect for stakeholder interests; respect for the rule of law; respect for international norms of behaviour; and respect for human rights.

[3] Paragraph 7.5.3 states: “The organization shall identify product status with respect to monitoring and measurement requirements throughout product realization”. The paragraph states that “where traceability is a requirement, the organization shall control the unique identification of the product and maintain records”.

12. These standards support the objective of ensuring traceability. However, the information generated from traceability systems is important only if companies act to address the identified social and environmental impacts that occur throughout the supply chain. How to use traceability to verify and authenticate "corporate social responsibility" claims, not only in their own right but also in terms of the extent to which the issues addressed by corporations actually respond to the specific concerns of consumers? In this respect, how can technical regulations, standards and market surveillance ensure this? For example, how can traceability be used to ensure that the furniture you purchase from legally logged timber and sustainably managed forests? Also which ICT solutions can regulatory stakeholders use to, for example, foster coordination and exchange of information, so as to improve their capacity to effectively and rapidly track and trace food products for the purpose of identifying health risks?

C. Agricultural quality and food safety

13. The food sector has been at the centre of the debate on traceability, given the expanding time lag between growing, processing and consumption of food. This time lag increases the risk of contamination, and incidents of foodborne diseases as a result of, for example, changes in temperature. The mere fact of moving food products, particularly perishable ones, from one country to another carries the risk of transferring an assortment of foodborne pathogens and microorganisms.

14. The development of comprehensive traceability systems that integrate monitoring, surveillance and risk analysis go a long way towards improving food safety. Such approaches should naturally cover the entire food production chain, from farm to fork, since the critical point for efficient prevention might be at the farm, as well as at the processing plant or during transport and/or storage.

II. Committee on Trade activities in support of traceability

16. The United Nations Centre for Trade Facilitation and Electronic Business has developed an international standard for electronic SPS certificates, "eCert". These certificates, which are required for export and import of food and agricultural products, are essential for ensuring the safety of consumers and the protection of the environment. The use of electronic Sanitary and phytosanitary (SPS) certificates also increases competitiveness, while reducing risks associated with trade. The United Nations Centre for Trade Facilitation and Electronic Business standard is used for facilitating agriculture trade between Australia, New Zealand and the United States of America, and the European Union is considering using this standard.

17. For its part, the Working Party on Regulatory Cooperation and Standardization Policies is developing guidelines and common principles for supporting the use of traceability as a tool for managing risks. The guidelines are based on a comprehensive analysis of how traceability is applied in different sectors, with an eye to meeting the concerns of consumers and businesses as well as regulatory requirements.[4] In the area of agricultural quality standards, which is the domain of the Working Party on Agricultural Quality Standards, the purchase specification code for porcine meat-carcases and cuts has

[4] A detailed account of WP.6's activities in support of traceability are available on the UNECE's website at: http://www.unece.org/trade/wp6/welcome.html

been included as part of the Global Trade Item Number (GTIN) developed by GS1 and used for tracing porcine meat throughout the supply chain.[5]

18. As they reflect on issues emerging from the discussions, member States may wish to consider the following concerns:

- Is there a need for a common understanding of how to combine traceability with certification and social responsibility?
- How could international best practices and standards, such as ISO 26000 and other means of verification, better use traceability as a tool for achieving their objectives?
- Is there a need to further include traceability in risk assessment and risk communication systems?
- What additional data standards need to be developed in order to support traceability throughout international supply chains?

[5] See UNECE (2008) *UNECE Standard Porcine Meat-Carcases and cuts*, New York and Geneva: United Nations, Annex 1.