Introduction to sustainability and responsible sourcing

Bioenergy sustainability

Ms. Tiziana Pirelli (GBEP Secretariat/FAO) presented on sustainability of biofuel supply chains as well as related risks and opportunities. Energy demand is increasing and with it the related GHG emissions. Modern bioenergy pathways spanning various feedstock, production processes and products, and its many uses are a tremendous resource towards Net Zero. Modern solid, gaseous or liquid biofuels can replace fossil fuels and traditional uses of bioenergy. Biofuels are a crucial tool for decarbonizing the transport sector as these require no retrofitting of existing engines and are biodegradable. The promising rise in production and consumption is a product of several enabling policies and mandates with different degrees of severity and compliance, for example, blending mandates in Norway and Finland. Currently, the main producers of biodiesel include Brazil, USA and Indonesia, with the first two also being the biggest manufacturers of bioethanol.

Ms. Pirelli highlighted that many risks remain associated to biofuel supply chains, not least those related to biomass production. Focusing on sustainability is key and a country context assessment is required. GBEP has developed the GBEP Sustainability Indicators aimed at assessing and monitoring bioenergy sustainability, which have been implemented in 14 countries. These are based on three equally important pillars, namely environmental, social and economic. GBEP/FAO is currently collaborating with FAO’s Markets and Trade Division (EST) Division, to mainstream responsible business conduct and due diligence in biofuel supply chains, building on both the GBEP Sustainability Indicators as a Monitoring, Reporting and Verification tool and the OECD-FAO Guidance for Responsible Agricultural Supply Chains.

Responsible sourcing

Mr. Tomislav Ivančić (Global Advisor, Responsible Sourcing and Agricultural Supply Chains, FAO) gave a presentation on responsible sourcing and risk-based due diligence in biofuel supply chains. He started his presentation by underlining the importance of understanding increasing sustainability and development risks in biofuel supply chains given the growth in demand highlighted by Dr. Pirelli. He noted that, although developments in biofuels and Sustainable Aviation Fuel (SAF) hugely benefit local sourcing communities, responsible business conduct in sourcing and trade helps to ensure positive outcomes across supply chains. FAO works on responsible business conduct (RBC) to support the reduction of social and environmental risks along the supply chains, particularly in low- and middle-income economies.

Regulations on RBC are increasing, and have evolved in the last 15 years, especially in thematic areas such as governance and corporate transparency, environmental and social due diligence, sustainability reporting and other key aspects such as emission, deforestation, greenwashing and more. The latest
developments deal with risk-based due diligence—asking companies to adapt their business models towards sustainable sourcing and better collaboration with stakeholders. In this context, Mr Ivančić introduced the OECD-FAO Guidance for Responsible Agricultural Supply Chains, a leading global framework for agri-business investors that incorporates existing RBC standards, introduces risks associated to sourcing and ways to deal with them. A 5-step framework is provided to help companies adapt their business models to consider risk-based due diligence. These considerations should be applied beyond companies’ ‘tier 1’ suppliers on suppliers on all levels. Other projects addressing risk such as deforestation, upstream and downstream, in the supply chain are the OECD-FAO Business Handbook on Deforestation and Due Diligence in Agricultural Supply chains, as well as a global multi-stakeholder platform uniting actors along global banana supply chains towards a business-enabling environment.

**Policies for sustainable sourcing**

Mr. Jinlei Feng (IRENA) gave a presentation on policies to support sustainable and responsible sourcing, and their importance for the clean energy transition. Bioenergy contributes to two thirds of the renewable energy consumed globally. More than half of bioenergy is consumed for cooling and heating with traditional methods, generating high levels of pollution as well as health threats. Modern bioenergy plays an important role in the global energy transition. Bioenergy production comes with several potential negative as well as positive impacts. Wood pellets, biofuels and bioethanol are major bioenergy commodities traded all over the world. Mr. Feng stressed that a comprehensive policy framework is necessary to ensure sustainability, incorporating sustainability-based target setting, cross-sector coordination, integration of SDGs, and governance. He presented conclusions from a case study on policy measures needed for sustainable production. This paper suggests that policymaking should consider aspects beyond energy, dealing with environmental, social and economic issues. In addition, agricultural and forestry sectors need to be included into the discussion of governance, as these can generate significant volumes of agricultural and forestry waste to produce bioenergy.

**Panel discussion**

Moderated by Mr. Gerard Ostheimer (Biofuture Platform), the discussion involved the following keynote speakers: Ms. Blanca de Ulibarri (Roundtable on Sustainable Biomaterials, RSB), Mr. Rainer Janssen (WIP Renewable Energies), Mr. Trip Taylor (Foreign Agricultural Service, USDA), and Mr. Marco Nocita (ENI).

Ms. de Ulibarri (RSB) explained how RSB helps companies meet sustainability requirements and address climate change in the most ethical and sustainable ways. The RSB standard covers 12 sustainability principles, and assessments are based on risks related to feedstocks. Partners span different sectors, and members work on the finetuning of standards and collaborate on activities. RSB have a number of initiatives related to biomass, SAF and more. Related key areas of focus concern implementation and certification schemes, for example assessing sustainability of feedstock for SAF production, which employ the OECD-FAO guidance as a reference.

Mr. Rainer Janssen (WIP Renewable Energies), described WIP’s work on creating sustainable supply chains in developing economies by balancing the export sector and local uses. One main requirement for the development of a sustainable biofuel supply chain is the creation of an enabling policy framework that, taking into account the complicated features of the energy sector and maximizing local value creation to strengthen the development of emerging economies. Biomass and biofuels are important means to support local markets and their development, supported by exports.
Mr. Trip Taylor (Foreign Agricultural Service, USDA) highlighted the fruitful cooperation between the USA and Europe. He expressed the importance of international cooperation towards energy security and successful international trade. This involves regulatory alignment across countries and continents with the aim of simplifying procedures and reducing compliance costs. Mr. Taylor underlined the role of research to scale up opportunities in the sector.

Mr. Marco Nocita (ENI) spoke on ENI’s priority to create new supply chains while raising workforce capacity. Efforts are in place to produce biofuels with vertical integration models over three phases of the value chain: agricultural production; transformation of agricultural products; and passages in biorefinery. These aspects are all subject to certification and considered by entrusting local producers without subtracting any land. Another issue deals with agri-hubs, where the final products are stored and treated. Finally, the last stage of the chain happens in the biorefinery. Eni tries to ensure sustainability of the supply chain, for example, selecting the appropriate lands while avoiding competition with food or causing land use change, taking the FAO-OECD Guidance into account.

Conclusions

Mr. Tomislav Ivančić (FAO) concluded the session by summing up the main messages. He noted that biofuels come with countless economic, social and environmental benefits but also with concerns around feedstock production related to labour, land, water and other natural resources, among others. He highlighted that demand forecasting is the key to help upstream producers to prepare for the future and downstream shifts by clients. As biofuels – particularly SAF - is still a relatively emerging sector, he stressed that learning the lessons from other sectors is an asset. Mr. Ivančić concluded by emphasizing the importance of minimum standards from down to upstream, together with a greater integration of human and social rights.