

Summary of Workshop:

Expert workshop for the How2Guide for Bioenergy: Biomass resources and bioenergy potential in South-East Asia

**23-24 July 2014, Piazza Athenee Hotel,
Bangkok, Thailand**

Background

The expert workshop for the How2Guide for Bioenergy: Biomass resources and bioenergy potential in Southeast Asia was jointly organized by the International Energy Agency (IEA) in the framework of the International Low-Carbon Energy Technology Platform, the Food and Agriculture Organization of the United Nations (FAO), and the International Renewable Energy Agency (IRENA). It is the second in a series of events providing inputs to the How2Guide for Bioenergy – a manual for policy and decision makers for the development and implementation of bioenergy technology roadmaps that are tailored to national frameworks, resources and capacities. The workshop was conducted in collaboration with the Thailand's Ministry of Energy and with the support of Netherlands Enterprise Agency (RVO). The workshop was attended by 79 participants (see Annex 1: List of participants).

Opening session

During the opening session, Mr Twarath Sutabutr, Deputy Director-General, Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, Thailand, welcomed participants and thanked them for their participation. He provided a brief on the background and history of the workshop's organization. He noted that IEA, IRENA and FAO developed a set of guidelines on "How2Guide Bioenergy", to promote the bioenergy sector in the region. He stressed that Thailand is has been highly committed to sustainable development of bioenergy, hoped others would benefit from Thailand's experiences; however, he did caution other countries not to copy all the processes, by adding that "*Nothing fits perfectly, it has to be tailored made*".

Ms Ingrid Barnsley, Head of International Partnerships and Initiatives, IEA, stressed that the important part of this regional workshop is to gain a better perspective for regional development of the road map. This is a workshop where everyone can learn from the experiences – both good and bad, with the hope that the pitfalls some have experienced can be avoided by others in the region. She finally expressed the strong interest IEA holds with Thailand and wider ASEAN, and hopes to see greater collaboration.

Mr Hiroyuki Konuma, Assistant Director-General and Regional Representative, FAO Regional Office for Asia and the Pacific, welcomed the participants and expressed his appreciation to the Thailand's Ministry of Energy and the Ministry of Agriculture and Cooperatives, IEA, and IRENA. He highlighted the need for this collaboration – it helped the energy and agriculture experts to join forces and find solutions that are sustainable and food secure. He further stressed that bioenergy can contribute towards

achieving wider and more sustainable energy access. The key is to develop bioenergy options sustainably, with the inclusion of smallholders and without competition for resources for food production.

He noted that the How2Guide initiative jointly developed by IEA, IRENA and FAO responds to the growing number of requests for assistance from emerging and developing economies with the development of roadmaps that are tailored to national frameworks, resources and capacities. Most importantly, this workshop will facilitate the opportunities to learn from each other and serve as a platform to present the How2Guide Concept and seek suggestions and inputs from countries to ensure the Guide can be included in the process of bioenergy development. He concluded his opening remarks by wishing the participants a successful discussion and dialogue.

Summary of workshop sessions

The workshop was divided into seven sessions. Session 1 started off with the panel discussion of the Introduction to the How2Guide for Bioenergy and global bioenergy technology potential. The session was moderated by Mr Kees Kwant, Vice-Chair, IEA Bioenergy Implementing Agreement. The experiences and lessons learnt by IEA, FAO and IRENA were highlighted.

Session 2, moderated by Mr Appanah Simmathiri, FAO Regional Office for Asia and the Pacific, focused on the assessment of bioenergy potential in ASEAN. The presentations by Thailand, Malaysia, Indonesia, Philippines, Cambodia, Laos, and Vietnam provided the bioenergy development status in the region.

Session 3, moderated by Mr Linus Mofor, IRENA, provided participants the opportunities to learn from experiences and lessons learnt through the implementation of bioenergy projects in Southeast Asia by the private sector and regional banks (Asian Development Bank, Asia Biomass Ltd., Felda Palm Industries, China National Energy Research Center of Liquid Biofuels, and PT. Syres Indonesia).

Session 4, moderated by Mr Thomas Chrometzka, GIZ Thailand, was dedicated to the theme of sustainability of biomass and biofuels. Experts from FAO, IINAS, Oxfam Indonesia and IEA Bioenergy Implementing Agreement/ RVO shared their lessons and experiences.

Session 5, jointly moderated by Ms Irini Maltoglou, FAO, and Mr Linus Mofor, IRENA, was specifically designed for discussion on bioenergy roadmap development – resource assessment and lessons learned from case studies. This session provided the opportunity to share experiences in relation to biomass resource assessment and mapping and barriers and opportunities for bioenergy development in the region. Speakers included representatives from Practical Action Consulting and Everest Energy Group.

Session 6, jointly moderated by Ms Ingrid Barnsley and Matthew Leete, FAO, focused on Bioenergy roadmap development – drivers, barriers and policy action options. The session provided the opportunity to share experiences in relation to the development of guidelines, methodologies and policy tools for supporting market

uptake of bioenergy technology. Representatives from GIZ ASEAN-RESP and European Commission presented their findings.

Session 7 comprised of group work – participants were split into three groups to brainstorm ideas on the bioenergy roadmap development. The discussion was developed around the key phases of bioenergy roadmap process, including consideration of bioenergy project drivers as well as barriers to technology deployment.

Summary of Conclusions

The workshop was concluded by wrapping-up the results of group discussion for the development of bioenergy roadmap.

Information that is important and should be integrated in the roadmap included: baseline data and information concerning the status of biomass resources, status of current technology, current research and initiative, and the existing challenges in implementation, and most importantly the assessment of feedstock availability (land use, current biomass use, supply cost, and local distribution).

It was noted that it is best to learn from the best practices in the region, which are already available. It was further suggested that it is important to identify the key stakeholders, priority biomass (residue & waste, forest product, crop, non-food crop) and approach to expand biomass supply (intensification/extensification). It is crucial to state the goals of the roadmap clearly concerning the impacts of drivers: why bioenergy is needed? and what type of bioenergy we are looking at?

Also, milestones for monitoring the progress, both short-term and long-term, must be developed. Key risks and assumptions should be considered during the planning process. Definition of terminologies must be clearly defined to avoid confusion at local, national and regional levels. Finally, consideration must be given on how to access to finance.

Level of detail needed for effective implementation and action included: feasibility studies and stakeholder consultations and sustainability, lessons learned from other countries, specific bioenergy target, enabling mechanism/incentive, and resource assessment (what has taken place previously? how are they allocated?).

Bioenergy resource assessment has been undertaken by participating countries at different levels. Some countries completed comprehensive assessments while others have not done so (for instance: Malaysia has undertaken the assessment; Lao PDR and Indonesia have not done so, Cambodia has done a scoping study, while Thailand completed a BEFS analysis in 2009). Areas of assessment/scoping studies included the identification of the level of technology required, policy support, market situation, and raw material/feedstock availability and sustainability of supply. Impact assessment should be done based on available data, even if needed basing data from other countries.

Barriers to bioenergy development included:

- Lack of government support, no mandate
- Lack of implementation guidelines
- Lack of supportive policies and regulation
- Limited links between financier and developer
- Lack of awareness of the benefits that can be derived from the project
- Lack of incentives/financial support/limited budget for support services
- Competition from other sectors
- Lack of awareness from public about biomass.

All of the participants confirmed that data accuracy/availability is a problem. There is a need to have full access to data on biomass resources, field data/area, farmer's directory and farm gate price.

Although the groups highlighted that policy makers and financiers are the key stakeholders, key players to be included in process of roadmap development are defined as following: private sector, NGOs, research and development partners, technology providers, energy sector, agriculture sector, forestry sector, trade sector, environment sector, farmers, investors, consumers, distributors and end users.

Closing remarks

To conclude the workshop, Dr. Prasert Sinsukprasert, Director of International Energy Cooperation Bureau, Ministry of Energy, Thailand thanked the workshop organizers. He stated that the workshop served as a good platform to share experiences between private and public sectors. He highlighted the key messages as below:

- There is a huge potential in the region for bioenergy development (from many kinds of feedstock),
- Sustainable bioenergy development is very crucial for the region, and all aspects must be taken into account for policy development,
- There is a need to have meaningful participation from stakeholders,
- There is a strong need for capacity building,
- It is necessary to ensure stakeholder cooperation,
- Overall commitment to sustainable bioenergy development is essential,
- Certification of biomass is important in order to implement bioenergy development,

He reiterated the strong need for follow-up with countries on how the roadmap development is taking place.

The full report can be obtained from:

http://www.fao.org/asiapacific/rap/home/meetings/list/detail/en/?meetings_id=1077&year=2014