

IEA Bioenergy Task 39
Commercializing Conventional and Advanced Transport Biofuels from Biomass
and Other Renewable Feedstocks

Draft Meeting Minutes and Agenda

IEA Bioenergy Task 39 Virtual Business Meeting
Monday-Tuesday, 8-9 November 2021

Attendance:

Monday, 8 November 2021

Alok Satlewal, Andrea Sonleitner, Cecilia Higa Gonzales Morilla, Dina Bacovsky, Don O'Connor, Franziska Müller-Langer, Glaucia Mendes Souza, Jack Saddler, Jianping Su, Jim McMillan, Jose Muisers, Luiz Horta, Mahmood Ebadian, Marco Buffi, Nicolaus Dahmen, Nicholas Islongo Canabarro, Oshada Mendis, Pablo Silva Ortiz, Paul Bennett, Paul Sinnige, Ravi P. Gupta, Rubens Maciel Filho, Tomas Ekbom, Sune Tjalfe Thomsen, and Yuta ("Shibby") Shibahara.

Tuesday, 9 November 2021

Andrea Sonleitner, Cecilia Higa Gonzales Morilla, Dina Bacovsky, Franziska Müller-Langer, Heitor Cantarella, Glaucia Mendes Souza, Jack Saddler, Jianping Su, Jim McMillan, Jose Muisers, Luiz Horta, Leif Jönsson, Mahmood Ebadian, Marco Buffi, Nicolaus Dahmen, Nicholas Islongo Canabarro, Pablo Silva Ortiz, Paul Bennett, Paul Sinnige, Oriana Vanderfleet, Rubens Maciel Filho, Tomas Ekbom, Sune Tjalfe Thomsen, Steve Rogers, Susan van Dyk, and Yuta ("Shibby") Shibahara.

Regrets: Kyu-Young Kang, Michael Persson, Seonghun Park, Shiro Saka, Stephen Dooley, Jin-Suk Lee, Duncan Akporiaye, Johan van Doesum, Nicolae Scarlat.

Similar to the previous business meetings in 2020 and 2021, the last Task 39 business meeting of 2021 (and last meeting of the 2019-2021 triennium) was held virtually, using Zoom. The meeting agenda comprised: a) current triennium project updates; d) Discussion on the approved Programme of Work by the ExCo for the next triennium (2022-2024) and c) next meeting/newsletters. To accommodate these agenda items, the Task business meeting was organized into two, 2-hr sessions on Monday 8 November and Tuesday 8 November as shown below.

Task 39 Business Meetings Start Times by Geographic Region (Meet for 2 hours each day)		
Region	Day 1 - Monday 8 November 2021	Day 2 - Tuesday 9 November 2021
Denver, USA	8:00 am	1:00 pm
Vancouver, Canada	7:00 am	12:00 pm
Central European Time	4:00 pm	9:00 pm
Auckland, New Zealand	4:00 am (Tue)	9:00 am (Wed)
Sydney, Australia	2:00 am (Tue)	7:00 am (Wed)
Tokyo, Japan	12:00 am (Tue)	5:00 am (Wed)
Seoul, South Korea	12:00 am (Tue)	5:00 am (Wed)
New Delhi, India	8:30 pm	1:30 am (Wed)
Sao Paulo, Brazil	12:00 pm	5:00 pm

Below provides the summary of main points (in red) that were presented/discussed in each agenda item.



Task 39 Project Updates

General Introduction; Update on Task 39 projects, activities, budget, ExCo, etc. (Jim McMillan)

- Jim provided a summary of significant achievements that Task 39 has achieved in the 2019-2021 triennium including commissioned reports, peer-review manuscripts, Inter-Task projects, business meetings, joint workshops and webinars, Task 39 newsletters and contributions to IEA Bioenergy Newsletters/Bulletins
- He also presented the activities/expected deliverables by the end of the triennium including upcoming Task 39 newsletter with feature article on Norway and draft Task 39 reports that will be circulated internally for review in the next few months (more details are provided on the status of each project report below)

Feedstock-to-biofuel(s) supply chain analysis. Focus on CAPEX and OPEX cost reduction opportunities for advanced biofuels (Ravi Gupta and Alok Satlewal)

- With contributions from the US, Canada, Brazil and Germany colleagues, Ravi and Alok has completed their analysis on feedstock availability, supply chains and second-generation ethanol production technologies.
- They presented the outline of the project report and mentioned that the draft report will be distributed for review and comments in a month.

Successes and lessons learned for conventional/advanced biofuels deployment: Inter-Task project (Tomas Ekbom and Franziska Müller-Langer)

- This is an InterTask project between T39 (Project coordinator), T40 and T45 to evaluate reasons underlying the past and ongoing boom and bust cycles of biofuel technologies development, demonstration, deployment and replication.
- This project is comprised of six WPs including WP1 (Status quo biofuel projects), WP2 (Meta-analysis existing studies), WP3 (Case studies technologies), WP4 (Case studies supply chains), WP5 (Synopsis / synthesis of key issues) and WP6 (Project management and dissemination).
- In WP1, four summary series reports including Introduction, and three case studies (Austria, Germany, and Sweden) will be ready for review by end of November.
- In WP3, specific case studies for Brazil, Germany, Sweden and the USA are prepared by Svebio and DBFZ and the draft case studies will be sent to project and/or network partners by end of November.
- WP2, WP4 and WP5 will be completed in the upcoming 2022-2024 triennium.
- The progress in WP6 so far: 1) five progress meetings (one or two more meetings are scheduled by end of the project); 2) three progress report presentations to ExCo with latest in October 2021; 3) ExCo88 - Intertask Lessons learned biofuels 1-page status report; 3) three internal workshops and 4) several project management meetings
- The project is planning for one external workshop on 25 Nov 2021



Biofuels in marine shipping report/Issues affecting utilization of advanced biofuels in the marine sector (Sune Tjalfe Thomsen)

- This project was completed in June 2021 after being reviewed and revised based on the received feedbacks from the member countries.
- The final draft of the report is now posted on Task 39 website for public access.

Biofuels Demonstration Plants (website, etc.) (Andrea Sonnleitner and Dina Bacovsky)

- Andrea described the current status of the Demoplants Database. This included overviews and examples of different technology routes including E-Fuels Biomass Hybrids, Hydrotreatment Facilities, Co-processing plants, Hydrothermal Liquefaction and SAF/Biojet Production Facilities
- The project team has been integrating new information into the database. The current entry is about 290 plants/projects, out of which 220 are at TRL 6-9.
- The project team will continue to update the database in the next triennium.
- Feedback and information on new facilities are always welcome.

Overview of existing/proposed certifications used for oleochemical and lignocellulosic-based biofuels supply chains; certification scheme improvement opportunities (plus brief description of proposed project for next triennium) (José Muisers and Paul Sinnige)

- The project team prepared a questionnaire and sent out to Task 39 member countries in July.
- Several member countries have already filled out and submitted the questionnaire but the project team hope they can receive the filled questionnaire and input from other members timely to complete the analysis of the data in the questionnaire by end of November.
- The project team have been cross-checking information in the submitted questionnaires (which will become annexes in the report).
- Jose also presented the outline of the second phase of the project for the next triennium which will focus on Sustainability 'risks' in selected biofuel chains –case studies from first phase (current project), anticipation of certification schemes on legal requirements, and potential risk mitigation in policy-based certification schemes

LCA, sustainability of biofuels pathway to identify key metrics beyond GHG reduction, spanning both feedstocks and conversion technologies (plus update of IEA HQ led project) (Don O'Connor)

- Don briefly presented the progress on "Development of Regional Life Cycle Inventory Data" with the focus on data available from sugar cane production and processing Brazilian RenovaBio program
- A draft report on the findings has been completed and circulated to the selected reviewers for comments and feedbacks.
- The second deliverable of this project is to prepare "Summary Papers for Policy Makers" (5-10 pages), summarising key factors influencing biofuel LCAs planned. The draft report will be prepared and circulated internally for review in the two months.

Tuesday, 9 November 2021

Task 39 Project Updates (Cont.)

Biofuels production and use status in “emerging” economies (plus brief description of proposed project for next triennium) (Rubens Maciel Filho and Glaucia Mendes Souza)

- Rubens presented the findings of their life cycle assessment for base case scenarios for four countries under study in the first phase of the project (Brazil, Argentina, Columbia and Guatemala). This part of the project has been completed.
- The project team is currently writing a paper based on the findings of their life cycle assessment for base case scenarios (90% completed)
- Other parts of the project that are currently ongoing include Mass and Energy balances (60% completed), Exergy analysis (30% completed), Paper II – EXA and TEA: Outline (10% completed), Life cycle assessment- LNBR collaboration (10% completed).
- Rubens also presented the plan for the second phase of the project in the upcoming 2022-2024 triennium which includes two new groups of emerging countries: Group II (South Africa, China, India and Nigeria) and Groups III (Russia, Malaysia and Thailand).

Biojet fuel/SAF/decarbonization of the aviation sector (Susan van Dyk)

- This project was completed in April 2021 after being reviewed and revised based on the received feedbacks from the member countries.
- The final draft of the report is now posted on Task 39 website for public access.
- The project team presented the findings of the project in the IEA Bioenergy Webinar entitled, “Sustainable Aviation Fuel/BiojetTechnologies –Commercialisation Status, Opportunities and Challenges” in 13 July 2021.
- Susan presented several suggestions for the update biojet report in the 2022-2024 triennium including ongoing monitoring of technology commercialization, specific in-depth assessment of PtL for SAF, developments in ASTM certification and higher blends (up to 100% SAF), Book and claim system and Sustainability standards and LCA methods under CORSIA (e.g. CCS).

Progress in the production of drop-in biofuels /co-processing (Jianping Su, Susan van Dyk and Jack Saddler)

- A peer-review article has been published in collaboration with the local oil refinery (parkland) in the journal of Fuel in February 2021, entitled “[Challenges in determining the renewable content of the final fuels after co-processing biogenic feedstocks in the fluid catalytic cracker \(FCC\) of a commercial oil refinery](#)”.
- The second peer-review article has been prepared and submitted and passed 1st review, entitled “Determining the amount of “green” coke when co-processing lipids commercially by fluid catalytic cracking”

Implementation agendas report (compare-and-contrast of biofuels policies) (Mahmood Ebadian)

- The draft report was prepared and circulated internally for review in September 2021.



- Several member countries have already reviewed and provided feedbacks.
- Mahmood requested the remaining member countries to send their comments and feedbacks by end of November so that he can revise and prepare the final draft of the report by end of December.

Brief discussion of proposed work for the next triennium (Group Discussion, led by Tomas and Glaucia)

- This session was led by Tomas and Glaucia, the new Task leaders for the 2022-2024 triennium.
- Tomas briefly explained the proposed Programme of Work (POW) for the upcoming triennium which was approved by the ExCo in the October meeting. He also presented a few slides on the proposed business meetings and newsletters in the upcoming triennium. The summary of his slides is provided below:
 - If there is a continuation in world travel restrictions and we cannot organize physical meetings. Tomas proposed to double the number of meetings and for Zoom only. Two days, same hours as this meeting.
 - If we can organize physical meetings which is our main goal, each meeting will also be a hybrid meeting.
 - The proposed locations for two Business meetings per year are
 - ✓ 2022: Colorado, USA (April) / India or Sweden (Sept)
 - ✓ 2023: Denmark or Germany (April) / Australia or New Z (Nov)
 - ✓ 2024: Netherlands or Belgium (April) / Brazil (Nov w BeBest)- Glaucia suggested month of October instead of November as November is the peak season for traveling to Brazil and flight and accommodation are more expensive than other seasons.
 - Possibly Japan or other location not previously visited could also be considered and if there is a special conference of great interest
 - The proposed number for Task 39 newsletter for next triennium is about three per year, equals nine in total, about an average of last triennium periods
 - During next triennium the proposed country articles are
 - ✓ 2022: Austria, Belgium and Japan
 - ✓ 2023: EU, New Zealand, (South Korea or Australia)
 - ✓ 2024: USA, Canada, ???
- Tomas emphasized that the above suggestions are for discussion, and we do not need to make any decisions today. He said we can decide about the meeting formats and numbers and Task 39 newsletters in our next meeting in 2022.
- He then opened the floor for feedbacks from the member countries about the Task's future activities and management.
- Several member countries including Paul Sinnige, Steve Rogers, Franziska Müller-Langer suggested that in some of the future meetings, only one or two projects/topics



are discussed instead of presenting updates on all projects so that more time will be available for deep discussions.

- Dina Bacovsky suggested that Task Leadership considers organizing hybrid meetings (for example one face-to-face meeting and three virtual meetings in a year). She also suggested and others including Franziska supported that an early meeting is organized in 2022 to discuss the details of the proposed projects and budget assignment for these projects. Having a meeting in early 2022 was agreed by Tomas.
- Franziska mentioned that as Germany suggested during the preparation of POW, subgroups are created in Task 39 for better communication and interaction between project leaders and the member countries.
- Glaucia suggested that for future newsletters, perhaps we should publish them in HTML format instead of PDF for better sharing and dissemination.

Possible virtual/hybrid Task 39 business meetings in early 2022? (Group Discussion, led by Tomas and Glaucia)

Newsletters to be published in 2021 and 2022:

Second half of 2021 – Norway

- Mahmood followed up with Duncan in late October to send him the leading article by Mid November.

First half of 2022 - ??

- See Tomas's suggestion above on the proposed leading article for the future newsletters in the 2022-2024 triennium.

Concluding remarks, wrap up and transition (Jim, Jack, Tomas and Glaucia)

- Glaucia and Tomas and the rest of participants thanked Jim and Jack for their great leadership and their efforts to make Task 39 a very successful and impactful Task in IEA Bioenergy
- Jim and Jack also thanked all member countries for giving them the opportunity to serve as the Task leaders and stressed that they will make sure the remaining deliverables of the current triennium are completed according to their schedules.