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**World Federation of Engineering Organizations  
Committee on Engineering and the Environment – 2015-2019  
Summary Progress Report to the 2018 Council in London  
from the Committee on Engineering and the Environment (CEE)  
for the period December 2017 to October 2018  
by the CEE Chairman, Jean Venables**

**1) Introduction**

This report details the activity of the CEE from the meeting in Rome in December 2017 up to mid-October 2018, including the themed groups that report into the CEE which are Engineering and Agriculture, Sustainable Mining, Climate Change Adaptation, and Climate Change Mitigation.

**2) Challenges during the year**

I am pleased to say that 2018 has seen more support from ICE allocated to the CEE. Rob Curd has been providing secretariat support and Ingrid Farmer has been managing the wider WFEO relationship.

Much of our efforts in 2018 have been centred around the delivery of activity for the GEC and its legacy and this is reflected in many sessions being held at the GEC that are being provided by CEE members.

The strongest aspects of the CEE activity continue to be in the work of both the Climate Change Adaptation and Climate Change Mitigation groups. Their continuing efforts to tackle the challenges of climate change have formed the key focus for our revised strategy to 2021. Our groups on Agriculture and Mining have again been hampered by lack of resource unfortunately, hence our decision to focus efforts primarily on SDG 13 climate action.

Recent discussions with the WFEO executive board have been around the possibility of establishing a new task group on the subject of SDG 6, clean water and sanitation. This work has initially been tasked to IIE in Spain and Portugal and we will be exploring ways in which the CEE can collaborate with their activities.



Correspondence with CEE members continues to be amongst the few 'engaged' rather than the wider committee members. We will be seeking to improve this in the future, examples of this can be seen in the two recent teleconferences we have held.

To help CEE continue to make progress, my husband and business partner Roger Venables continued to assist in an Honorary Secretary role.

### **3) Meetings, Events and Teleconferences**

I was an invited speaker at the Hong Kong Innovation Summit in January 2018.

As Chair of CEE I had hoped to join the Paris meeting in March via telecon but this facility could not unfortunately be provided by the secretariat.

I have attended planning meetings within the ICE for the WFEO 40th anniversary meetings and for GEC and subsequently provided CEE speakers and sessions for the GEC.

I, together with the support of Rob Curd, have held Teleconferences on 24th July and 19th September for CEE members.

#### **3.1 Chairman's meetings and related activities**

I was very pleased to be able to again meet Fethi Thabet, Theme Leader on Engineering and Agriculture, on one of his visits to Europe. It was good to see him trying to develop contacts. However, despite Fethi's best efforts funding has not been available to achieve his goals.

I have also been very pleased to be able to take part in some (and Rob Curd most) of the meetings of the Future Climate Engineering Solutions Group (FC-ES), which fulfils the role of CEE Task group on Climate Change Mitigation. As you can see from their report, good progress is being made towards finalisation of the National Energy Plans Good Practice Framework aimed for December 2018.

### **4) Strategy for the Committee 2017-19**

As requested by the executive board, we have revised our strategy to focus primarily on one SDG, Climate Action (SDG13). We will be building on the work carried out by both the Adaptation and Mitigation task groups and the links they have established with the UNFCCC.

In our last face to face meeting in Rome we discussed the possibility of establishing a further task group on Water. At the executive council meeting in March 2018 it was agreed that IEE would be leading this task group. We will therefore be exploring in our October meeting how we can collaborate and support the activity of the IIE.

As part of our strategy, we have created an action plan to 2021 with clearly defined outputs. We have also aligned this plan to relevant SDGs and WFEO's aims of; Influencing, convening, improving, growing, partnering and recognising.

### **5) Prospects for the period November 2018 to November 2019**



The GEC has absorbed a great amount of my time as well as ICE and no doubt WFEO's time also. The result is that the event is looking extremely exciting and is possibly the biggest thing that the ICE and WFEO has ever delivered.

This is a unique opportunity to galvanise the engineering community around the SDGs and raise the profile of WFEO. The legacy of the GEC will have a number of activities for the CEE and other WFEO STCs to build on and I look forward to actively participating in the GEC legacy and the delivery of the WFEO 2030 plan.

Dr Jean Venables CBE FREng FICE  
CEE Chairman, 18 October 2018

**World Federation of Engineering Organizations  
Committee on Engineering and the Environment (CEE) – 2015-2019  
Task Group on Climate Change Adaptation  
Progress Report as at 18 October 2018 for CEE Meeting in Rome  
20 November 2018**

**1) UNFCCC intercessional meetings in Bonn**

Both Darrel Danyluk and David Lapp attended week one of the UNFCCC meetings in Bonn April 30 to May 4. On the 2<sup>nd</sup> May they gave a presentation on 'Climate Risk Management for Infrastructure – Building Adaptive Capacity and Furthering NAP Implementation'

The event was organised in the context of the global project Climate Services for Infrastructure Investments (CSI). CSI has set out to empower decision-makers to make greater use of Climate Services and adopt risk management approaches when planning infrastructure investments. The project is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). Engineers Canada and the German Meteorological Service (DWD) are implementation partners of the project. In Brazil and Costa Rica, the Climate Change Departments of the Ministry of the Environment (MMA) and the Ministry of the Environment and Energy (MINEC), respectively, are the lead executing agencies of the CSI project. Other partner countries and regions are the Nile Basin (represented by the Nile Basin Initiative) and Vietnam. Key Questions at the event included;

- What are challenges and potentials of mainstreaming climate risk management into infrastructure investment planning?
- How can mainstreaming of climate risk management into infrastructure planning serve NAP implementation?
- How can the use and provision of Climate Information and Services serve national adaptation planning and what are the associated challenges?



## 2) UNFCCC COP24 in Poland

### 2.1 Attendance

We requested 25 slots for the COP event in Poland this December. We have received 6 places for each week. Darrel is currently in the process of ensuring that we have a good representative spread across those that have applied.

### 2.2 Side events

We have also been successful in securing a place at the EU Side Event Programme at COP24 in Katowice.

The slot will be on **Monday 3 December** from **10.30 to 12:00** and will be alongside the following organisations;

**Contribution of engineers to climate change - engineering feasibility of mitigative measures**, Organiser **WFEO/NOT/SITK RP**

**The coupling of air pollution and climate change**, Organiser **Leibniz Institute for Tropospheric Research (TROPOS)**

Confirmation of the final details of this event is still pending.

We have been successful in securing a side event as a joint applicant within the UNFCCC meetings. The timing and location for the event is pending. A verbal update will be given by David Lapp.

Darrel Danyluk P.Eng FEC, FEIC, FCSCE, FCAE  
Prepared October 18, 2018

**World Federation of Engineering Organizations  
Committee on Engineering and the Environment (CEE) – 2015-2019  
Task Group on Climate Change Mitigation  
Progress Report as at 12 October 2017 for CEE Meeting in Rome  
27 November 2017**

## 1) Progress Report 2018

### 1.1 Framework Report update

The adaptation group released the [National Energy Plans Good Practice Framework](#) in December 2017. This report was promoted amongst the CEE via a [webinar held on February the 7<sup>th</sup>](#). A number of the contributors to the report were from the IPCC and directly involved in their [recent report](#) which gained global media attention.

### 1.2 UK Energy Plan

ICE and a number of other UK PEI's are in the early stages of updating our UK energy plan to 2050, they hope to collaborate with BEIS on the work they are carrying out on the Global Calculator. (an open-source



model of the world's energy, land and food systems that allows you to design your own version of the future up to 2050 and see the implications for the climate.)

### 1.3 COP24

We have collaborated with the adaptation task group on the proposal of sessions and attendance to COP24 and hope to be able to send along some of the group to present our work.

### 1.4 Collaboration with WFEO Energy Committee

We have an item on the agenda for the Energy Committee meeting in October. We will be presenting our work and looking for ways that we can engage with the wider WFEO membership.

Rob Curd  
16 October

**World Federation of Engineering Organizations  
Committee on Engineering and the Environment (CEE) – 2015-2019  
Task Group on Engineering and Agriculture  
Progress Report as at 18 October 2018 for CEE Meeting in London  
20 October 2018**

#### **1 Progress Report 2018**

A verbal report will be given at the CEE meeting on 20 October.

#### **2 Strategy to 2021**

The CEE strategy to 2021 suggests that we focus on 1 to 2 SDGs. The primary focus will be on SDG 13 Climate Action with a secondary focus on SDG 6 Clean Water and Sanitation\*. Activity that the task group chair undertakes will still be supported and promoted by the CEE.

**World Federation of Engineering Organizations  
Committee on Engineering and the Environment (CEE) – 2015-2019  
Task Group on Sustainable Mining  
Progress Report as at 18 October 2018 for CEE Meeting in London  
20 October 2018**

#### **1 Progress Report 2018**



The CEE secretariat has struggled with correspondence to the task group. No contact has been received since October 2017. As indicated in the last correspondence; “Because of a general downturn in the global minerals industry the task force budget has been significantly reduced and SME which has generously sponsored the task force since its creation in 2010 is no longer able to provide staff support for task force activities.” It is therefore suggested that we sunset this task group to focus our efforts on SDG 13 and 6\*. This does not prevent any future activity or promotion around sustainable mining should resources become available.

\*pending agreement at the CEE meeting in October

**World Federation of Engineering Organizations  
Committee on Engineering and the Environment (CEE) – 2015-2019  
Task Group on Sustainable Practices for Civil Engineers  
Progress Report as at 18 October 2018 for CEE Meeting in Rome  
20 October 2018**

**1 Progress Report 2018**

Engineers Canada and Polytechnique Montreal have teamed together to create a free Massive Open On-Line Course entitled “Sustainability in Practice”. It is available in English and French streams worldwide and starts October 24. The four-module course is based on Engineers Canada’s National Guideline on Sustainable Development and Environmental Stewardship which is the Canadian adoption of the WFEO Code of Practice by the same name.

It is part of WFEO-CEE’s plans to raise awareness and learning about the WFEO code of practice. This on-line course this presents an excellent opportunity for all engineers to learn these concepts and ways they have been applied in real projects.

The website is now open and is being promoted through the WFEO home page as follows:

[Registration is now open](#) for the massive open online course (MOOC) being developed by Engineers Canada and Polytechnique Montréal based on the [National Guideline on Sustainable Development and Environmental Stewardship for Engineers](#). This new, free online course, called “Sustainability in Practice”, is a great professional development opportunity for engineers to learn how to apply the sustainable development and environmental stewardship guidelines in their daily practice. A [teaser](#) video is online. Classes begin on October 24, 2018.

We encourage you to spread the word within your network. For more information, please visit the Engineers Canada [website](#), or don’t hesitate to contact us (Catherine Christoffersen [Catherine.christofferson@engineerscanada.ca](mailto:Catherine.christofferson@engineerscanada.ca) or David Lapp [David.lapp@engineerscanada.ca](mailto:David.lapp@engineerscanada.ca))



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The course consists of four recorded modules that include quizzes and a final examination. People can review the course at their own pace but must submit their final examination by December 17 to be considered for a Certificate of Completion which costs \$50 CAN.

To date over 1,000 people have registered for the English and French streams. Approximately 1/3 of the registrants are from outside Canada. The course is free and we hope that more people will register before registration closes in late November. We are engaging the WFEO Secretariat to assist in this promotion.

A second delivery of the course in Canada is planned for the first quarter of 2019. We will reach out to the WFEO Secretariat for promotional support through the website and call upon national and international members to assist as well.

Going forward it would be excellent if international case studies could be developed so that a WFEO version of the course could be prepared. This will require funding. Seeking and securing such funding will require dedicated effort.

David Lapp P.Eng. FEC, FCAE, IRP  
18 October 2018