



PEF President's Message

We are only half-way into 2018 and so far there have been many postharvest events and activities completed by our board of directors and e-learning graduates. Two book projects being managed by PEF are getting close to completion. In June the FAO e-course on Food Loss Analysis was launched, and in October there will be a side event on FLA at the Committee on Agriculture (<http://www.fao.org/coag/en/>) and a postharvest conference in Sri Lanka. In addition, two major international postharvest conferences have been announced by the World Food Preservation Center (WFPC) and host organizations in Brazil and India (<http://www.worldfoodpreservationcenter.com>)



Dr. Lisa Kitinoja
President & Founder
kitinoja@postharvest.org

PEF board members will be assisting with event organization and planning. Get ready to submit your proposals for presentations and posters on your postharvest research and training work!

7th Annual PEF E-learning Closing Workshop



The Postharvest Education Foundation will be holding our 7th PEF annual e-learning closing workshop during the week of **July 16-20 in Kigali, Rwanda** in conjunction with the ABA "Postharvest Agribusiness Innovation Conference and Competition".

Bertha Mjawa (PEF board member from Tanzania) and Dr. Hilda Vansantakaalam of the University of Rwanda will be the lead instructors for this workshop. Participants will include recent PEF e-learning graduates and our 2017 Kader Awards winners Gerefa Sefu (Ethiopia) and Dr. Mohammed Razu Ahmed (Bangladesh).



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Welcome to new board members

PEF Annual Board Meeting was held on May 4th, 2018. Two new board members have joined the team.



Guy Kodjogbe (Benin) is an Agricultural Engineer with specialisation in Horticulture and Plant protection. He is an alumnus of PEF E-learning program (2012). He was a fruit and vegetables postharvest specialist at International Institute of Tropical Agriculture (IITA) in Benin from 2007 to 2010. He was awarded the Bill Hudson global fund small grant program of the Global Cold Chain Alliance (GCCA) USA in 2015. Guy was involved in different projects focusing postharvest losses assessment, Commodity System Assessment Method (CSAM) studies, Training of Trainers in Benin, Ghana, Burkina Faso, Djibouti, Senegal, Turkey and Togo.

Antonio Edoh Kukom Ognakossan (Togo) is working with World Vegetable Center – West & Central Africa-Dry regions office as the Production and Postharvest Specialist for the USAID-funded Mali Horticulture Scaling Project. He was an alumnus of PEF E-learning program – 2013. Edoh has more than 7 years of experience in agricultural research working on postharvest management of staple crops. He earlier worked as Research Fellow under the RELOAD (Reduction of Postharvest Losses and Value Addition in East African Food Value Chains) project at International Centre of Insect Physiology and Ecology (ICIPE), Kenya.



Guy and Antonio have been assisting PEF with the development and implementation of French language postharvest e-learning programs.

Gender and food loss in sustainable value chains - A guiding note



The United Nations Food and Agriculture Organisation (UNFAO) has published an interesting new document “**Gender and food loss in sustainable value chains - A guiding note**” with main aims to conceptualize and raise awareness on the bond between gender equality and food loss while offering practical guidance to integrate gender concerns into the carrying out of food loss case studies, the planning and implementation of reduction strategies and different interventions.



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Bellagio Statement on Postharvest Management

Twenty-two practitioners, representing governments research, academia, the private sector, NGOs and donors, gathered at the Rockefeller Foundation Bellagio Center, Italy between September 11 and 14, 2017 to share their experiences and their vision for improved postharvest management (PHM). Dr. Deirdre Holcroft and Dr. Lisa Kitinoja of PEF have been postharvest advisors for this initiative. This is first and foremost a collective commitment to collaborate and scaleup effective actions. The main outcomes of the workshop were published as 'Bellagio Statement on Postharvest Management' on March 26, 2018.

The statement also seeks to inspire postharvest actors to rethink effective approaches to address the postharvest and food loss issue. It is great to know that the needed postharvest work for Africa (promotion of education, entrepreneurship, coordination and policy development) will be in good hands. The details of 'Bellagio Statement on Postharvest Management – a Roadmap for Achieving Food Security' can be viewed at <https://www.helvetas.org/en/switzerland/what-we-do/our-topics/economies/economy-expert/bellagio>

BELLAGIO STATEMENT ON POSTHARVEST MANAGEMENT

MARCH 26, 2018



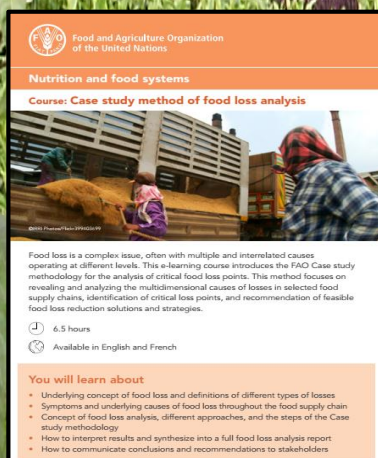
Bellagio Center, Postharvest Management Workshop Participants

THE CHALLENGE

After a steady decline, world hunger is on the rise again, with 815 million people – one out of every nine on the planet – food insecure or undernourished in 2016, up from 777 million in 2015¹. According to the Food and Agriculture Organization (FAO) of the United Nations², approximately one-third of all food produced in the world is lost or wasted. In highly food-insecure regions such as Sub-Saharan Africa, approximately 20% of all grains, 44% of roots and tubers, and 52% of fruits and vegetables are lost between harvest and consumption. There is also substantial degradation in quality, affecting financial value and associated incomes, nutritive content and public health.

Given this precarious situation and an expected population increase from 7.6 to 9.8 billion by 2050, rapid resource depletion and a changing climate, food and postharvest loss reduction needs to be at the center of strategies for sustainable development. As the global community strives to achieve the Sustainable Development Goals (SDGs) of eliminating poverty and hunger by 2030, improved postharvest management (PHM) has the potential to avoid losses equivalent to the food and nutrition requirements of 48 million people³ in Sub-Saharan Africa, the region most at risk of food and nutrition insecurity.

FAO E-learning course on food loss analysis methodology



E-Course leaflet

FAO has launched a free e-learning course (leaflet) introducing the FAO field case study methodology for the analysis of critical food loss points. This method focuses on revealing and analyzing the multi-dimensional causes of losses in selected food supply chains, identification of critical loss points, and recommendation of feasible food loss reduction solutions and strategies.

The E-course on food loss analysis methodology (FAO, IFAD, WFP) was authored by Dr. Lisa Kitinoja and officially launched on June 26th, 2018 at Austria Room, FAO, Rome and via livestream. ([Agenda](#))

The target audience for this course are the field level programme officers who wish or need to design, organize, coordinate and implement a food loss analysis and also the technical advisors and academics who want to learn more about the topic in order to teach others. The e-course is designed for 6.5 hours dedicated hours and is presently available in English and French languages. <http://www.fao.org/elearning/#/elc/en/course/FLA> The full list of free online courses offered by FAO are available at website link www.fao.org/elearning



Solar Cold Rooms – Things to consider before installing

Dr. Deirdre Holcroft, *Holcroft Postharvest Consulting* www.holcrofthpostharvest.com

In areas with an unreliable supply of electricity solar powered cold rooms can fill the postharvest need for refrigerated storage. Suppliers of solar powered cold rooms can provide different systems for a wide range of requirements and budgets. Potential users need to consider many factors when selecting a solar cold room besides size, temperature range, and cost, to suit their requirement. This article provides some questions to ask, as well a selection of suppliers.

General questions:

- How many solar panels does it take to support the cold room?
- How many hours of sunlight does the region have throughout the year?
- Are the solar panels located on top of the cold room?
- If the panels are located on top of the cold room does this supply enough energy and can the cold room support the weight?
- What is the conversion efficacy of sunlight to energy? (Typically the conversion rate is about 19-22% unless very expensive panels are used).
- What is the typical life of the solar panels and for how long are they guaranteed?
- How does energy get stored for night time or cloudy periods?

Questions about phase change backup:

- For how long can a phase change backup power the cold room?
- How long does it take to recharge the phase change system while running the cold room?
- How long does a phase change system last and what are the maintenance requirements?



ColdHubs (Solar cold room) in Nigeria

Questions about backup generators:

- Does the system have a backup generator?
- Does the backup generator turn on automatically if the system runs out of power?

Questions about battery backup:

- If the backup storage uses batteries, what kind of batteries are used (lithium, vanadium, other) and how many?
- For how long can the fully charged batteries power the cold room?
- How long does it take to recharge the batteries while running the cold room?
- What is the average life of the batteries?

Sizes and costs

Solar cold rooms vary considerably in size and cost. Several companies provide 20 or 40 ft. containers converted to a solar system, whereas others can retrofit an existing cool room or build according to specifications. Typical sizes range from 9-30 m² with prices ranging from US\$500 to US\$5000 per m². Larger cold rooms tend to be cheaper per m². The price of the system is affected by the type of backup system e.g. the use vanadium batteries can double the cost of the cold room.

The following link is an informative case study on solar powered cold storage systems for reducing waste and improving quality of horticultural produce:

<https://mnre.gov.in/file-manager/akshay-urja/february-2016/37-39.pdf>



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Evaporative Cooling Best Practices

Massachusetts Institute of Technology (MIT) D-Lab; Movement e.V. and World Vegetable Center, jointly conducted an evaluation of technologies designed to improve the storage of vegetables using evaporative cooling and published a very informative guide – ‘Evaporative Cooling Best Practices Guide – producing and using evaporative cooling chambers and clay pot coolers’. The guide was co-authored by **Kukom Edoh Ognakossan** (PEF Board Member) along with **Eric Verploegen** and **Peter Rinker**. The pdf version of the document can be downloaded from the link below:

<http://d-lab.mit.edu/sites/default/files/Evaporative%20Cooling%20Best%20Practices%20Guide.pdf>



Food Security and Policy Learning Workshop



Tigist Tadesse Shonte (2012 PEF e-Learning graduate) was invited to ‘**Food Security and Policy Learning Workshop**’, South Africa from 11 -13 April 2018 organized by Academy of Science of South Africa (ASSAf) – Organisation for Women in Science for the Development of World (OWSD) – South Africa Young Academy of Science (SAYAS) to present on the topic “**Women Farmers: challenges and way forward to Extension of Small-Scale Postharvest Horticulture Technologies for Sustainable Food Security**” under the theme ‘Application of gender lens in addressing food security and policy concerns’. The audiences showed fascination towards the postharvest technologies and most of them indicated their interest to expand the technologies to their respective countries.

Journal of Horticulture and Postharvest Research (JHPR)

Journal of Horticulture and Postharvest Research (JHPR) has called for the papers of works related to minimization and management of postharvest losses for the special issue on ‘Postharvest Losses of Horticultural Crops: (Innovations and Challenges)’. Deadline: **30th September 2019**.

Website: <http://www.jhpr.birjand.ac.ir/>



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A Cool World: 1st International Congress on Clean Cooling

A Cool World

1st International Congress on Clean Cooling

18th - 19th April, University of Birmingham

UNIVERSITY OF
BIRMINGHAM



The University of Birmingham, UK successfully organised “A Cool World” (18th-19th April 2018), the first ever international congress on clean cooling to bring together cooling and energy efficiency decision-makers and experts to discuss how to meet our global demand for cooling sustainably. Dr Lisa Kitinoja participated in the plenary discussion on

‘Cooling in the Developing World – Making Livelihoods’ and presented on topic ‘Business Models for Clean Cooling Enterprises in the Developing World’.

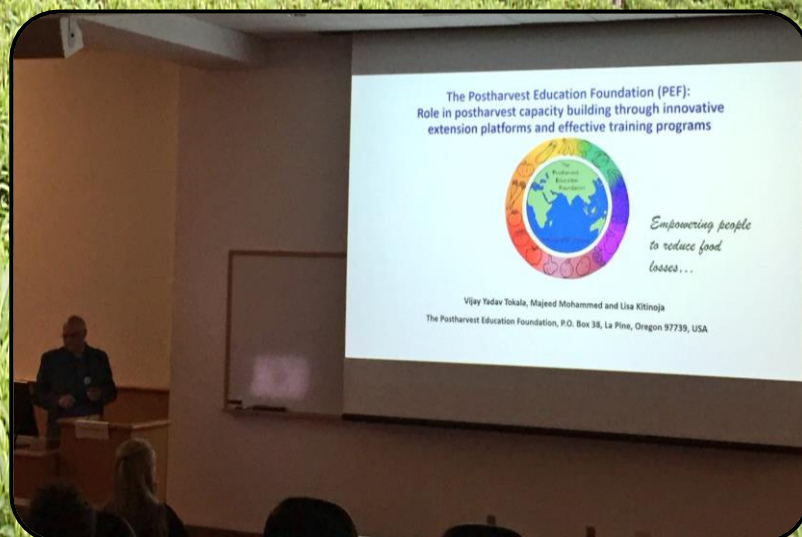
The presentations of the congress can be downloaded from

<https://www.birmingham.ac.uk/Documents/college-eps/energy/events/A-Cool-World-Congress-Day-One-PDF.pdf>

<https://www.birmingham.ac.uk/Documents/college-eps/energy/events/A-Cool-World-Congress-Day-Two-PDF.pdf>

Revalorizing Extension: Evidence and Practice

University of Illinois, Urbana-Champaign organised “Revalorizing Extension: Evidence and Practice” symposium (3rd-4th April 2018). Nearly 30 researchers and practitioners presented on their work and experiences. The role of extension services in international agricultural development and ways to increase support to and effectively deliver extension services to smallholder farmers was discussed.



Dr. Majeed presenting at the Congress[#]




Dr Majeed Mohammad, PEF board member presented on topic “The Postharvest Education Foundation: Role in postharvest capacity building through innovative extension platforms and effective training programs in Africa and the Caribbean” at the symposium. Download presentations at: <https://agreach.illinois.edu/resources/spring-symposium>



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Congratulations to our newest PEF graduates

-  **Sharon Cyatengwa** (Rwanda) Postharvest specialist at The National Agricultural Export Development Board.
-  **Dr. Hilda Vasanthakaalam** (Rwanda) Dean, School of Food Science and Technology at College of Agriculture Animal Science and Veterinary Medicine, Univ. of Rwanda.
-  **Thomas Buyinza** (Uganda) Postharvest Technology Specialist, Iowa State University - Uganda Program. PEF plans to publish PEF White Paper 18-01 based on Thomas CSAM study on Cassava crop.



Dr Hilda Vasanthakaalam
(Rwanda)

Serge Ndayitabi, ABA
Inc. (right) handing
over the Certificate of
Completion and
postharvest tool kit to
Sharon Cyatengwa
(Rwanda)



Thomas Buyinza(Uganda)

PEF's 'Global Postharvest E-learning Program' is now Free!

Check the website for further details and register by completing Assignment #1:

http://postharvest.org/postharvest_elearning_program1.aspx

Postharvest Queries:

Mail us at postharvest@postharvest.org any postharvest related questions you wish to be answered.

SUPPORT OUR WORK

The Postharvest Education Foundation is a 501(c)(3) non-profit public charity with aim to reduce global food losses, which are as high as up to 50%.

Donations to The Postharvest Education Foundation are used for 3 major program activities:

1. Postharvest tool kit: For e-learners from developing country who complete their training (US\$400 each).
2. Travel Support: To pay for the travel expenses to attend international postharvest training programs (air tickets, hotels, food, local transport costs) (Estimated as \$1500-\$2000 per e-learner).
3. Kader Awards: Awarded annually in honour of Dr Adel A. Kader to PEF Alumni, who show greatest impact in providing trainings for clientele at different levels (\$500).

Kindly check our website (<http://www.postharvest.org/donate.aspx>) for other alternate ways to donate.

Thanks in advance for your tax-deductible donation, which will be used to train young horticultural professionals via low cost internet based programs, with reading assignments, fieldwork on improved practices for postharvest handling, storage, processing and marketing.

Email us at newsletter@postharvest.org to subscribe to the PEF newsletter.

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