

## Comunidad de práctica (CdP) en reducción de pérdidas de alimentos

### Informe del foro núm. 2 (junio de 2015) - Español

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#### Segundo debate en línea sobre “Reunir y describir las metodologías de evaluación existentes de las pérdidas poscosecha” (marzo de 2014 - junio de 2015)

*Objetivo de la discusión:* La CdP en reducción de las pérdidas de alimentos quiere compilar una lista analítica de metodologías de evaluación de las pérdidas de alimentos poscosecha empleadas actualmente en todo el mundo. ¿Qué metodología de evaluación de pérdidas de alimentos conoce, ha utilizado o está utilizando? Por favor, proporcione una breve descripción del objetivo (incluyendo usuarios finales de los resultados), herramientas, presupuesto (mínimo), marco temporal, alcance, tipo de resultados esperados u obtenidos y enlaces a documentación relevante.

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El segundo debate en línea de la Comunidad de práctica (CdP) en reducción de pérdidas de alimentos se abrió el 26 de febrero de 2015. Respondía a las necesidades expresadas por los usuarios de la CdP en una consulta realizada vía correo electrónico y el foro de la CdP, cuyo objetivo era determinar un tema de discusión que pudiera cubrir una carencia de conocimiento o comprensión común. En el universo de la gestión poscosecha hay en marcha algunos procesos paralelos cuyo fin es identificar los últimos avances realizados en este campo. Uno de los más importantes está dirigido por el Instituto de Recursos Mundiales, que finalizará un protocolo o estándar para la medición de las pérdidas y el desperdicio de alimentos (más información [aquí](#)). La consulta en línea de la CoP pretendía en última instancia la compilación conjunta entre las distintas partes interesadas y los profesionales de una lista de metodologías de medición utilizada en sus evaluaciones actuales, que están teniendo lugar en distintos países y para distintos productos. El debate ha recogido experiencias de instituciones relevantes, y reflexiones y preguntas de distintos expertos, que han sido de interés para avanzar en el análisis. Se han compartido y puesto a disposición de los miembros algunos recursos relevantes (la lista está disponible más adelante en este documento).

#### ANTECEDENTES

Se ha reconocido la importancia de evaluar las pérdidas con el fin de dirigir las intervenciones, sensibilizar y en último término reducir las pérdidas de alimentos. Los encargados de elaborar políticas y tomar decisiones, los actores de la cadena de valor, entre ellos los pequeños agricultores, y las organizaciones de apoyo (financieras y no financieras) pueden abordar mejor los problemas relacionados con la pérdida de alimentos si cuentan con datos y cifras fiables. Además, el seguimiento y la evaluación de los resultados de todos los esfuerzos para reducir las pérdidas que se lleven a cabo deben basarse en evaluaciones adecuadas.

En todo el mundo, los distintos actores han utilizado varias metodologías para evaluar las pérdidas de alimentos, cuyas diferencias radican en muchos factores. Así, la discusión en línea “Reunir y describir las metodologías de evaluación existentes de las pérdidas poscosecha” tenía por objeto consolidar un mejor conocimiento de las prácticas de evaluación actuales y facilitar la elección del enfoque más apropiado, o una combinación de enfoques, para aquellos interesados en evaluar las pérdidas según los objetivos, recursos y tiempo disponibles.

Mireille Totobesola-Barbier, directora del proyecto conjunto de los [organismos de las Naciones Unidas con sede en Roma](#), comenzó la discusión proporcionando un resumen en

el que se describe la metodología de la FAO par el estudio de casos que se utiliza en los tres países piloto (Burkina Faso, Uganda y República Democrática del Congo) del proyecto “Incorporación de iniciativas de reducción de las pérdidas de alimentos para pequeños agricultores en zonas con déficit de alimentos”, que están llevando a cabo los organismos con sede en Roma (La FAO el Fondo Internacional de Desarrollo Agrícola (FIDA) y el Programa Mundial de Alimentos [PMA]).

Esta metodología para el estudio de casos también se ha utilizado en Kenya, Camerún y países de Asia (véase más información en: <http://www.fao.org/save-food/recursos/casestudies/es/>) en el marco de la iniciativa mundial SAVE FOOD.

El resumen mencionando anteriormente está disponible en [español](#), [inglés](#) y [francés](#).

## DISCUSIÓN Y RESULTADOS

Se establecieron debates en torno a cuatro temas principales, que contaron con distinta participación. La directora del proyecto conjunto de los organismos con sede en Roma, Mireille Totobesola, abrió un hilo de discusión sobre “*Metodologías de evaluación para el estudio de casos*” basado en la experiencia adquirida tras la implementación de esta metodología de estudios de casos de SAVE FOOD en tres países piloto: Burkina Faso, Uganda y la República Democrática del Congo. Uno de los miembros de la CdP, la directora de la Postharvest Education Foundation, Lisa Kitinoja, informó sobre la “*Metodología de evaluación de sistemas de productos básicos*” que usa en sus sesiones de capacitación y se basa en el manual de la FAO producido a finales de los años noventa. La moderadora de la CdP, Francesca Gianfelici, abrió un nuevo hilo a finales de abril para solicitar la contribución de los miembros en “*Evaluación de las pérdidas de alimentos poscosecha: ventajas, limitaciones y exactitud de la información y los datos recopilados*”. Finalmente, para concluir y resumir el debate, la moderadora abrió un último hilo sobre “*Cómo agregar y comparar datos en la evaluación de las pérdidas de alimentos poscosecha*”. Participantes de todo el mundo enviaron respuestas en relación con su propia experiencia. Los detalles relativos a los debates están disponibles en el idioma original y por orden de envío.

Este largo debate ha mostrado que las metodologías están diseñadas para considerar diversos objetivos y recursos disponibles al evaluar las pérdidas de alimentos. Por consiguiente, los enfoques son diversos, y de ahí la falta de puntos en común. Durante la discusión también se compartieron recursos relevantes.

En especial, los miembros de la CdP que han contribuido a este debate han descrito distintas evaluaciones y análisis cuantitativos, pero no se han mencionada mediciones estadísticas de las pérdidas. Se creó una tabla donde se resumen los métodos disponibles, que se pueden consultar en línea en: [http://www.fao.org/fileadmin/user\\_upload/food-loss-reduction/CoP\\_English/PHL\\_assessments\\_inventory\\_overview.pdf](http://www.fao.org/fileadmin/user_upload/food-loss-reduction/CoP_English/PHL_assessments_inventory_overview.pdf).

## LISTA COMPLETA DE CONTRIBUCIONES

<b>Case studies assessments methodologies</b>	Dear colleagues, partners and CoP members,  As many of you may know already, I’m the project manager of the RBA project on ‘Mainstreaming food loss reduction initiatives for smallholders in food deficit areas’. We are currently starting PHL assessment in the three pilot countries (Burkina Faso, DRC, and Uganda) where the project will assess PHL in major crops (rice, maize, cowpea, beans, sorghum sunflower) and identify suitable solutions for the identified key loss points along the supply chains.
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	<p>The methodology to be used is the one developed for case studies assessments in the framework of the Global SAVE FOOD initiative. At the following link you can have a look at it:<a href="http://www.fao.org/fileadmin/user_upload/food-loss-reduction/Example_for_new_online_discussion.pdf">http://www.fao.org/fileadmin/user_upload/food-loss-reduction/Example_for_new_online_discussion.pdf</a> (available also in French : <a href="http://www.fao.org/fileadmin/user_upload/food-loss-reduction/French_Example_for_new_online_discussion.pdf">http://www.fao.org/fileadmin/user_upload/food-loss-reduction/French_Example_for_new_online_discussion.pdf</a> and in Spanish <a href="http://www.fao.org/fileadmin/user_upload/food-loss-reduction/CoP_Spanish/Spanish_Example_for_new_online_discussion.pdf">http://www.fao.org/fileadmin/user_upload/food-loss-reduction/CoP_Spanish/Spanish_Example_for_new_online_discussion.pdf</a>)</p> <p>This methodology comprises tools to be adapted to the type of crops to be assessed (e.g. non-perishable vs. perishable), to the context of the countries and the target zones, to the resources available and timeline, etc. noting that the methodology has been developed to be applied from harvest time to the commercialization phases. It is based on observations and analyzes of the main causes of qualitative and quantitative losses.</p> <p>I would be happy to receive any comment, query, and feedback from your side, especially in terms of comparing our experience with yours, using this methodology or other tools to assess losses.</p> <p>Looking forward to reading from you. Sincerely, Mireille Totobesola-Barbier</p> <p><b><u>Replies:</u></b></p> <p><u>Author:</u> 'bajj paswan' <u>Posted:</u> 14 Mar 15 - 06:23 PM <u>Subject:</u> re: case studies assessments methodology</p> <p>Hello, Survey method has included four "S" which are Screening, Survey, Sampling and Synthesis. I think in Post-Harvest losses (PHL) screening of problems are more important because many times it happened that farmers are unaware about losses which are happening in the field. Many agriculture practitioners missed common problems which are mostly related to "Climate Change". I have some queries about sampling methods what methods are going to use in this case study? what is the number of sample size for Survey ? Thanking You !</p> <p><u>Author:</u> 'John Macharia' <u>Posted:</u> 16 Mar 15 - 12:38 PM <u>Subject:</u> re: case studies assessments methodology</p> <p>Some of the effective ways to measure post harvest losses is to conduct on farm and on station/ lab trials. This can be done in action research kind of setting within projects. Projects also offer an avenue of conducting longitudinal studies on post harvest and food loss practices among different countries, crops and communities. For Example AGRA is undertaking action oriented research in the north and southern highlands of Tanzania to test the efficacy of various hermetic technologies that target various value chain actors in Tanzania. To ensure uptake, AGRA is working with the Tanzanian ministry of Agriculture, National Food Reserve Agency (NFRA), private sector traders, farmer organizations and farmers to test the efficacy of these technologies. You can read more about this in the</p>
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	<p>following link:</p> <p><a href="http://mobile.thecitizen.co.tz/business/Government-hails-novel-way-of-protecting-grain/-/2304484/2632842/-/format/xhtml/-/aodf0d/-/index.html">http://mobile.thecitizen.co.tz/business/Government-hails-novel-way-of-protecting-grain/-/2304484/2632842/-/format/xhtml/-/aodf0d/-/index.html</a></p> <p>AGRA has also conducted surveys aimed at establishing the extent of post-harvest losses in 11 countries. This information is made available through the AGRA website (under recent publications)</p> <p><u>Author:</u> 'John Macharia' <u>Posted:</u> 16 Mar 15 - 01:07 PM <u>Subject:</u> re: case studies assessments methodology</p> <p>Hi Mirelle,</p> <p>Thanks for organizing this forum.</p> <p>It is a good idea to conduct a study on the extent of post-harvest losses in the mentioned crop and countries. This methodology is good to address issues of the how, when, why etc, the case study methodology is good to provide specific loss areas for a subject under study. However for generalization purposes, and to understand the extent of loss in the country and for different crops. it may be more appropriate to conduct a survey that can provide empirical results on the extent of loss.</p> <p>It is also important to measure the most effective and efficient technologies and interventions to reduce losses. Metal Silos do reduce post harvest storage losses, but in what situations might these be the best solutions vis a vie other storage technologies. I have found that most organizations are promoting hermetic bags which are effective but might be too costly to adopt. In Kenya a synthetic bags costs about US \$ 33 cents, a hermetic bags costs as high as US \$ 4 per bag. metal silos range between US\$ 500-1000. These technologies have been promoted irrespective of the fact that use of Acteric for example will provide the same results as metal silos and hermetic bags.</p> <p>All the best in you r study</p> <p><u>Author:</u> 'Fernando Vinícius da Rocha' <u>Posted:</u> 02 Apr 15 - 03:44 AM <u>Subject:</u> re: case studies assessments methodology</p> <p>Jhon Macharian: Very nice to know about this work in Tanzania. Thanks for share it.</p> <p>About the storage processes and the losses, in Brazil we have an experience that showed us that the bad conditions of some cooperative's warehouses increases the total loss in the chain (in this case we analysed the wheat chain in Rio Grande do Sul state). The cooperativism is very important in Brazil, especially in this state where we have small farmers, and some important examples of cooperatives do not have great conditions to store the production. By a survey, some estimates show that 5% (some times more) are lost in this storage process.</p> <p>Another point, the losses are very relevant in the field (in the time</p>
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	<p>after the harvest process). Bad conditions e bad tune of the harvesters, for example, increase the percent of the loss. In Rio Grande do Sul, some estimates showed that more than 6% of the potencial production are lose in the field, during the harvest process. And we have a kind of methodology to measure the amount of loss, and we use this also in sugarcane fields. In short, we use a kind of template (1 x 1 meters), and put it in the field in a randomly, and we pick-up the grains and count and weigh it. With this amount, we can make some estimatives about how much are loss in 1 hectare (10,000.00 square meters) – we do this process a few times to have a more accurate estimate.</p> <p><u>Author:</u> 'Mireille Totobesola' <u>Posted:</u> 12 Apr 15 - 09:42 PM <u>Subject:</u> re: re: case studies assessments methodology</p> <p>Dear Baij and all,</p> <p>Thank you all for your contributions and interest in this discussion.</p> <p>Regarding the sampling method, it is explained under the section on Load Tracking with the following sub-section. I will provide an example with figures:</p> <p>III-5. Sampling Often a two-stage sampling is required: 1) a systematic selection of units from the load, and 2) a random sample from the selected units to be a measurable unit. For example: from a bag of maize grain (1st-stage sample) with a scoop one kg of grains (2nd stage sample) can be taken from three parts of the bag (bottom, center, top); from a bunch of bananas (1st stage sample) a few bananas (2nd-stage sample) can be picked randomly. In all cases the weight or volume of the unit and the samples has to be measured. Sample size: a 1st-stage sample size should preferably be 30% of the load, however with a maximum of 20 samples. A 2nd-stage sample size could normally be 1 kg or 1 litre. Based on the samples, the total weight as well as the product quality of the load can be determined.</p> <p>NB.: The weight loss as a result of regular intentional processes such as drying, fermentation, heating, etc. is not food loss. If such processes apply to a load, parallel samples of sound product have to be taken before and after the process to measure the intended weight loss.</p> <p>In the case of grains in bags, the following example is developed in the current improved version of the document on the methodology, on sampling before and after an event such as storage as one of the Key Loss Points identified:</p> <p>If the load is of 20 bags (experimental unit) of 81Kg each, so a total of 1620 Kg The 1st stage sample would be 5 bags of 81 Kg, so a total of 405 Kg The 2nd stage sample is 1Kg of grains taken with a scoop from the upper, middle and lower parts from each of the 5 bags, so <math>3*5 = 15</math> Kg</p> <p>The measurement of losses in quantity and quality will be done from this sample of 15Kg before the event considered (e.g. storage).</p>
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	<p>After the event, to be accurate when calculating the reduction in weight and percentages, the weight of the samples taken from each of the 5 bags before the event needs to be deducted.</p> <p>I hope this helps. Please do not hesitate to contact us again if you have doubts, need for additional clarifications, or suggestions about this and/or other issues related to this topic.</p> <p>Thank you,</p> <p>Best regards, Mireille</p> <p><u>Author:</u> NRI_PHL <u>Posted:</u> 28 Apr 15 - 11:01 AM <u>Subject:</u> re: case studies assessments methodology</p> <p>Hello,</p> <p>we have recently published a paper on PHL in the cassava value chains, which compares the situations of different cassava-producing countries such as Ghana, Nigeria, Thailand and Vietnam.</p> <p>First of all, it is important to emphasize that In the domain of PHL there is very little consensus about terminologies and definitions. In this paper we have made a clear distinction between physical, economic and monetary losses. According to our definitions, physical losses refer to fresh or processed cassava products that disappear or are damaged to the point that have to be thrown away at any of the stage of the value chain. Economic losses refer to products that have incurred quality deterioration to the point that either their market price is discounted or cannot be used for what they were initially meant (e.g. damaged roots processed into lower value products). Therefore economic losses, unlike physical ones, have residual value or alternative uses. Since the major problem is the deterioration of the root we have assumed that only fresh cassava incurs economic losses. Finally, with monetary value of PHL, we refer to the financial loss due to either physical or economic losses.</p> <p>For the estimation of the economic losses we have interacted with the different value chain actors and identified the average proportion of cassava roots that is sold at discounted price or processed into value products due quality deterioration.</p> <p>The monetary value of physical losses at each stage of the chain has been calculated by multiplying the amount physically lost by the typical farm-gate price (for on-farm losses) or by the price that had been paid for the quality root (for all other stages of the value chain). Finally, for the estimation of the monetary value of economic losses, we have jointly identified with the different value chain actors two typical degrees of quality deterioration leading to price discounts. For each degree we have determined the quantities affected and the level of price discount (relative to the price of good quality roots) at that point of the chain. We have then used these data to calculate the market value that had been lost.</p> <p>The full PDF text is available from the Journal of Agriculture and Rural Development in the Tropics and Subtropics:</p>
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	<p><a href="http://www.jarts.info/index.php/jarts/article/view/2014121946902/821">http://www.jarts.info/index.php/jarts/article/view/2014121946902/821</a></p> <p>Best regards,</p> <p>Diego Naziri Natural Resources Institute (NRI) and International Potato Centre (CIP)</p> <p><u>Author:</u> PostharvestOrg <u>Posted:</u> 28 Apr 15 - 06:10 PM <u>Subject:</u> re: case studies assessments methodology In 2009-10, WFLO conducted a series of postharvest loss and quality assessments in India, Benin, Rwanda and Ghana. The survey teams used a worksheet developed for each crop, and many different horticultural crops were assessed. Some of the results have been published, but most of the study was reported only in a final project report for the funding agency (BMGF). Anyone who would like to have a copy of the original data collection worksheets is welcome to send me an email (<a href="mailto:kitinoja@postharvest.org">kitinoja@postharvest.org</a>) and I will be happy to share them.</p> <p>Kitinoja, L. and AlHassan, H. A. (2012). Identification of Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Horticultural Farmers in Sub-Saharan Africa and South Asia. Part 1: Postharvest Losses and Quality Assessments. Acta Hort (IHC 2010) 934: 31-40.</p> <p>Saran, S., Roy, S. K. and Kitinoja, L. (2012). Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Horticultural Farmers in Sub-Saharan Africa and South Asia. Part 2: Field Trial Results and Identification of Research Needs for Selected Crops. Acta Hort (IHC 2010) 934: 41-52.</p> <p>BMGF Appropriate Postharvest Technologies planning project (WFLO 2009-10) <a href="http://ucanr.edu/datastoreFiles/234-1848.pdf">http://ucanr.edu/datastoreFiles/234-1848.pdf</a> (slide deck) <a href="http://ucanr.edu/datastoreFiles/234-1847.pdf">http://ucanr.edu/datastoreFiles/234-1847.pdf</a> (full report)</p> <p>Author: 'bajj paswan' Posted: 03 May 15 - 07:12 PM Subject: re: re: re: case studies assessments methodology</p> <p>Thank you Mireille, for very useful information regarding my query. The measurements of losses in quantity are visible but nutritional losses are hidden in general perception if you have any tool regarding this please share me.</p> <p>Thanks again.</p> <p><u>Author:</u> 'Bin Liu' <u>Posted:</u> 04 May 15 - 10:46 AM <u>Subject:</u> re: re: re: re: case studies assessments methodology</p> <p>Regarding Bajj's question:</p> <p>In theory, if a food composition table is available, once the amount of loss of each kinds of food is known, nutritional losses can be easily calculated based on the table. However, the problem is that</p>
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	<p>many developing countries haven't developed a national food composition table and tables of other countries may not be applicable. For rough estimate, FAO's INFOODS (<a href="http://www.fao.org/infoods/infoods/tables-and-databases/en/">http://www.fao.org/infoods/infoods/tables-and-databases/en/</a>) and WFP's Food Composition Table (<a href="http://www.wfp.org/fais/nutritional-reporting/food-composition-table">http://www.wfp.org/fais/nutritional-reporting/food-composition-table</a>) may be good data sources.</p> <p>Best regards, Bin</p> <p><u>Author:</u> 'Wise Amegashie' <u>Posted:</u> 10 May 15 - 10:50 PM <u>Subject:</u> re: case studies assessments methodology</p> <p>Thank you Moderator for creating this platform to help us deliberate on issues relation to PHL reduction. The current PHL Assessment approaches are based on the nature of harvested crops /produce (perishability and/or durability of the crops), thus the assessment parameters are used considering crop specific. Therefore, these PHL assessment measures are used to reduce PHL in our sub-region to ensure food safety and food security. The existing assessment methodologies are also relevant in the following ways:</p> <ol style="list-style-type: none"><li>1) the sources of post-harvest losses (who within the marketing chain is responsible).</li><li>2) the causes of those losses (what handling or marketing practices are responsible) and</li><li>3) the economic value of the losses compared to the costs of current and proposed post-harvest practices.</li></ol> <p>Many •times weight loss through water loss (wilting. shriveling. loss of volume) will be directly related to loss of income and quality changes (over-ripeness. browning. decay), will also be determined to reduce profits when produce must be culled during handling. These losses must be assessed in terms of the costs associated with adopting new post-harvest practices.</p> <p>Best regards, Wise</p> <p><u>Author:</u> 'Warren T K Lee' <u>Posted:</u> 04 Jun 15 - 05:35 PM <u>Subject:</u> re: case studies assessments methodology In response to Baij's question:</p> <p>We are a small team in FAO, Rome, under the Global Initiative on Food Loss and Waste Reduction, to develop models to investigate nutrient losses in food losses and waste (FLW) at global, regional and country level. We would like to see how much nutrient loss along with FLW that could in fact be fed to the vulnerable groups with micronutrient deficiencies should the foods were not wasted. Initially, we have selected vitamin A content in fruits, vegetables and animal foods, and FLW utilised datasets from a EU country and a developing country in Africa.</p> <p>The major problem we encountered in the data analysis was that most of the FLW data regarding foods are in aggregates of food groups such as lemons, limes and products, other citrus, tomatoes</p>
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	<p>and products, etc. However, nutrient composition of foods in most national food composition database is given in single food item. As a result, we needed to make some assumptions to estimate nutrient contents in these foods aggregated into food groups. We also found that precise information on the percentages of FLW at various steps of the food supply chain is very useful to provide more precise estimation of FLW and the associated nutrient losses. Therefore, there is room for improvement in the way to collect FLW data at the global, regional and country level.</p> <p>Our preliminary findings in the African country with local post-harvest food loss data have found that vitamin A loss along with food losses among 4 selected food items during a 1-year period could in fact be able to satisfy vitamin A demand of 80% malnourished children under 5-year old in the same country, who are vitamin A malnourished.</p> <p>We are now writing up the report and the scientific papers, and would be able to share our results with the Community of Practice soon.</p> <p>Best wishes,</p> <p>Warren T K Lee</p> <p>Nutrition Division, FAO Headquarters, Rome.</p>
<p><b>Commodity Systems Assessment Methodology</b></p>	<p><u>Author:</u> PostharvestOrg  <u>Posted:</u> 03 Mar 15 - 07:48 PM  <u>Subject:</u> Commodity Systems Assessment Methodology</p> <p>I have been using CSAM (Commodity Systems Assessment Methodology) for several decades as a training aid for teaching young hort professionals how to measure and reduce postharvest losses. PEF includes CSAM in our e-learning program, and WFLO uses CSAM to conduct postharvest/cold chain training needs assessments. The manual was developed by Jerry LaGra and the Univ of Idaho in the 1990s.</p> <p>Commodity Systems Assessment Manual:  English <a href="http://www.fao.org/wairdocs/x5405e/x5405e00.htm">http://www.fao.org/wairdocs/x5405e/x5405e00.htm</a>  Spanish <a href="http://www.fao.org/wairdocs/x5405s/x5405s00.htm">http://www.fao.org/wairdocs/x5405s/x5405s00.htm</a>  French <a href="http://www.fao.org/wairdocs/x5405f/x5405f00.htm">http://www.fao.org/wairdocs/x5405f/x5405f00.htm</a></p> <p>PEF White Paper No. 13-02 (October 2013)  Gathering Data to Address Postharvest Loss Challenges: Commodity Systems Assessment Methodology. White Paper No. 13-02. La Pine, Oregon USA: The Postharvest Education Foundation. 8pp  <a href="http://postharvest.org/CSAM%20Gathering%20data%20on%20Postharvest%20loss%20challenges.pdf">http://postharvest.org/CSAM%20Gathering%20data%20on%20Postharvest%20loss%20challenges.pdf</a></p> <p><u>Replies</u></p> <p><u>Author:</u> 'Vijay Yadav Tokala'  <u>Posted:</u> 09 May 15 - 01:54 PM  <u>Subject:</u> re: Commodity Systems Assessment Methodology</p> <p>I was trained to use Commodity Systems Assessment Methodology (CSAM) by Postharvest Education Foundation (PEF) during my e-learning courses, in order to find out factors responsible for variation between the expected production, yield produced and</p>

	<p>quantity reaching consumers. I felt it as a systematic approach, from production planning to product distribution and helps to ensure that all factors affecting a given commodity are considered i.e., pre-production, production, harvest, postharvest, or marketing. I had chance to conduct survey for vegetable and fruit crops using Commodity Systems Assessment Methodology (CSAM) in rural areas of Rajasthan, India and found that several factors are responsible for reduction in quality yield and for postharvest losses. They include practice of traditional farming techniques, lack of enough knowledge about pre-cooling, cultivation, storage and pre &amp; post harvest handling techniques. While the major postharvest losses in the crops were due to improper harvesting practices, lack of suitable packaging, in-availability of appropriate storage facilities and lack of ideal transport facilities. Improper harvest practices include harvesting of crops without proper knowledge about maturity indices, time of harvest, modern harvesting techniques and pre-cooling. Suitable packing materials are not in use and mostly bamboo baskets, jute bags are overloaded while packing, which constitute a major cause for postharvest losses. Lack of proper cooling facilities while storage and transit also cause heavy loss to produce. Through the survey using Commodity Systems Assessment Methodology (CSAM), it was realized that major postharvest losses were caused due to inappropriate packing and transport followed by improper harvest practices. Hence I feel that CSAM proved to be an effective postharvest losses (PHL) assessment methodology.</p> <p><u>Author:</u> 'Bin Liu'  <u>Posted:</u> 21 May 15 - 06:46 PM  <u>Subject:</u> re: Commodity Systems Assessment Methodology</p> <p>To my understanding, CSAM is an indirect method. It collects information on PHL from local resource persons through workshops. On the other hand, the case study methodology requires experts to go to the field in person to make first-hand observations and collect first-hand information. The information obtained is not necessarily only limited to losses. These two methodologies serve different purposes and should not be viewed as alternatives to each other. CSAM may be useful for investigating a whole subsector in a certain area/region in a relatively short time, while the case study methodology can provide an in-depth understanding of the course that one (or several) commodity goes through along the food supply chain.</p>
<p><b>PHL assessments: advantages, limitations, and accuracy of information/data collected</b></p>	<p><u>Author:</u> 'Francesca Gianfelici'  <u>Posted:</u> 29 Apr 15 - 02:39 PM  <u>Subject:</u> PHL assessments: advantages, limitations, and accuracy of information/data collected</p> <p>Dear CoP members,</p> <p>In these last weeks we have consulted you to get a feedback on the methodologies that you are using for assessing postharvest losses. Although, we came up with a limited number of examples, we are able to share with you a <a href="#">summary</a> (we will be happy to update it with your collaboration!).</p> <p>For those who have shared examples of methodologies of PHL assessment, and also from the others not yet presenting their work, we would like to get</p>

	<p>some further information, such as:</p> <ul style="list-style-type: none"> <li>- According to your experience, what are the advantages and limitations (e.g. allocation of: time, human and financial resources, geographical coverage, value chains) of the methodology that you know best?</li> <li>- In terms of accuracy/quality of data information collected (from quantitative and qualitative assessment), which ones have statistical significance vs. practicality and identification of trends i.e. 'good enough' to orient interventions?</li> </ul> <p>We wish that your contribution would stimulate further the exchanges within the CoP members in order to strengthen the community's knowledge sharing and potential for enrichment.</p> <p>Many thanks for your valuable contribution, we count on you also for engaging other relevant practitioners. Let's make our CoP moving forward for the reduction of food losses worldwide.</p> <p>With kind regards,          Francesca Gianfelici          CoP Moderator          FAO of the UN / AGS division</p>
<p><b>How to aggregate and compare PHL assessment data?</b></p>	<p><u>Author:</u> 'Francesca Gianfelici'  <u>Posted:</u> 04 Jun 15 - 12:06 PM  <u>Subject:</u> How to aggregate and compare PHL assessment data?</p> <p>Dear CoP members,</p> <p>this is to address you with few additional questions related to the different methodologies to sum-up and conclude this discussion.</p> <p>Do you see possibilities of results comparison from the existing methodologies?</p> <p>To what extent their results can be aggregated for assessing PHL worldwide?</p> <p>Looking forward to reading from you.</p> <p>With kind regards,          Francesca Gianfelici</p> <p>CoP moderator          AGS Division / FAO</p>

### EL CAMINO A SEGUIR

La discusión en línea sobre “Reunir y describir las metodologías de evaluación existentes de las pérdidas poscosecha” se extendió hasta el 30 de junio de 2015. Este informe, disponible en el [archivo del foro](#), es un documento vivo que puede desarrollarse si los colegas, expertos y profesionales interesados desean compartir más información.

Para ello, pueden ponerse en contacto con la moderadora de la CdP en < food-loss-reduction@fao.org >.

## RECURSOS RELEVANTES Y ÚTILES SOBRE EL TEMA

- **Commodity Systems Assessment Manual** available in [English](#), [French](#), and [Spanish](#)
- **PEF White Paper No. 13-02 (October 2013).** *Gathering Data to Address Postharvest Loss Challenges: Commodity Systems Assessment Methodology*. White Paper No. 13-02. La Pine, Oregon USA: The Postharvest Education Foundation. 8pp
- Kitinoja, L. and Al Hassan, H. A. (2012). *Identification of Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Horticultural Farmers in Sub-Saharan Africa and South Asia*. Part 1: Postharvest Losses and Quality Assessments. *Acta Hort (IHC 2010)* 934: 31-40.
- Saran, S., Roy, S. K. and Kitinoja, L. (2012). *Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Horticultural Farmers in Sub-Saharan Africa and South Asia*. Part 2: Field Trial Results and Identification of Research Needs for Selected Crops. *Acta Hort (IHC 2010)* 934: 41-52.
- **BMGF Appropriate Postharvest Technologies planning project (WFLO 2009-10) :**
  - <http://ucanr.edu/datastoreFiles/234-1848.pdf> (slide deck)
  - <http://ucanr.edu/datastoreFiles/234-1847.pdf> (full report)
- Diego Naziri, Wilhelmina Quaye, Bernard Siwoku, Sittichoke Wanlapatit, Tu Viet Phu, Ben Bennett. *PHL in cassava value chain*. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*:  
<http://www.jarts.info/index.php/jarts/article/view/2014121946902/821>
- AGRA action oriented research: <http://mobile.thecitizen.co.tz/business/Government-hails-novel-way-of-protecting-grain/-/2304484/2632842/-/format/xhtml/-/aodf0d/-/index.html>
- **CoP on food loss reduction inventory of PHL assessments**, available [here](#)
- **GIZ Rapid appraisal tool presentation (2015):**  
[http://www.fao.org/fileadmin/user\\_upload/food-loss-reduction/CoP\\_English/GIZ\\_Tool-presentation.pdf](http://www.fao.org/fileadmin/user_upload/food-loss-reduction/CoP_English/GIZ_Tool-presentation.pdf)