

Post MDG Development Talking Points
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Leading Question: There are projections that population dense parts of the world will not achieve food security in the coming years. For example in sub-Saharan Africa, it is projected that at current population growth rates and current production rates, the region will only be able to produce 25% of its own food. At the same time, recent FAO statistics suggest that close to 150 kg of food is lost or wasted per year per person in Sub Sahara Africa due in part to consumer waste but mostly as a result of production losses. What role, if any, does law have to play in improving post-MDG food security by tackling the waste problem?

Comments: The problem I want to focus on is a tractable problem for which there is a general global consensus—waste and particularly food waste is problematic. In middle-class suburbia, the countless parents who have looked over a plate of half-finished food and said, think of the children in Africa—were not so much teaching their children about the plight of children in Africa as they were about the value of not wasting resources.

Comments will focus on exploring MDG 1 “Eradicate extreme poverty and hunger” through the Conceptual lens of waste- What role can international law play? Should we be setting a post-MDG target on food loss and waste elimination? What direction can international law provide via informing specific decisions bout development aid? What direction can international law provide via domestic reform?

MDG Hunger Statistics Update- The proportion of undernourished people in developing regions decreased from 23.2 per cent in 1990–1992 to 14.9 per cent in 2010–2012. Given reinvigorated efforts, the target of halving the percentage of people suffering from hunger by 2015 appears to be within reach. Still, one in eight people in the world today remain chronically undernourished Globally, nearly one in six children under age five are underweight; one in four are stunted. Stunting in infants and children, defined as inadequate length or height for their age, captures early chronic exposure to undernutrition which leads to physical and emotional problems. States in the Caribbean, Southern Asia and, especially, sub-Saharan Africa and Oceania will not meet the target

Food Loss and Waste Statistics

The world collectively wastes 1.3 billion tons of food annually. Direct economic consequences of food waste (excluding fish and seafood) are \$750 billion annually. Researchers from China Agricultural University observed that edible food thrown out by restaurants each year is almost 10 percent of the country’s annual crop production, or enough to feed 200 million people.

2009- 32 percent of all food production by weight is lost or wasted (translated into calories-this means that we are losing 24% of our available calories). The numbers are highest in Europe and North America but they are not negligible in other parts of the world that we associate with being food insecure. In Sub-saharan Africa- over 150 kg of food is lost or wasted per person. In North Africa and West and Central Asia, over 200 kg of food per person is lost or wasted. In Latin America, an equivalent amount is never consumed by the intended human consumers. The numbers in Africa translate to about 420 cans of soup per person if you want a mental image. FAO calculates that 300 million individuals could be fed with the lost and wasted food from Africa alone. Food waste in poor countries results in a vicious cycle since it means lost income from small farmers and higher prices for poor local consumers as small farmers attempt to recoup their losses.

We have hotspots of particular concern where food is lost at an extremely rapid rate. 50% of the vegetables are produced and consumed in India but the loss levels for these commodities are extremely high .Likewise in Sub-Saharan Africa, the loss of root crops such as cassava are extremely high (substantial loss of quality within 2-3 after harvest).

Why is there so much food lost in the developing world that could otherwise contribute to the MDG 1 goal of eradicating hunger?

Aquatic food source that provide a large amount of protein-- a) Poor harvesting techniques AND

Both aquatic and terrestrial food sources--a) Poor storage b) Poor transport c) Poor processing. Most of the food being lost in developing world is a result of post-harvest and processing concerns.

What can we do about this—one way of bring awareness to this issue would be to set a post-2015 goal on food loss and waste? World Resources Institute in 2013 provides some useful language “By 2030 reduce postharvest food loss and waste by 50 percent”—this proposed target needs some fleshing out and that it was I intend to do with some suggestions for the role of law.

Law – A number of possible roles 1) Creating investment incentives for locating agricultural processing near producers—Appropriate subsidies for storage and cooling facilities coupled with development funds being channeled to post-harvest production. Processing plants can pursue fermentation increases food security by increasing the amount of materials that can be used in food production. In order to succeed there must be an appropriate policy framework- tax structures and regulatory framework. This would be a different approach than our current approach which is to put 95% of our funds into crop production and 5% into post-harvest challenges. 2)Facilitating fairer relationships between sellers and buyers by ensuring that Unfair trading practices are eliminated so that larger processing companies/retailers cannot reject products on the basis of aesthetics but only for demonstrated safety reasons. This is particularly important in the case of developed countries importing food from developing countries where quality regulations

continue to dictate appearances of products and not just nutritional values. 3) Developing intraregional markets which are particularly important in places such as Africa where intraregional exports within Africa were worth more than three times as much as exports to non-African markets

4) Technology transfer within the South- 5) Need to define waste- Do we simply know waste when we see it—is bycatch a form of food waste that needs to be managed

1) Focus on improving safe production capacity Example- Much food is wasted when it has to be transported and can't be processed especially fruits, vegetables, roots, and tubers. Need to bring processors closer to producers or enable producers to also become processors and increase the value of their products. Realm of medium capital loans for small business.

Need to incorporate understandable sanitary guidelines into the law and provide legal education training in food safety to ensure that less food is wasted.

2) Focus on increasing the power of producer organizers- Domestic law needs to support producer organizations: Smallholder Problem and possible response that addresses infrastructure and building relations between sellers/buyers – Formation of producer organizations that can coordinate production among members (ensure a diversity of products that can withstand a “basket” fluctuation in market prices) and have sufficient clout to lobby for improved public sector investment in food processing and food storage – East African Dairy farming- farmers can turn to group owned and run refrigerated milk collection centers and milk processing facilities. / Law can provide for multi-grading. For farmers who supply high-value markets there may be large amounts of waste because of external requirements that leads to loss of edible food. Producer organizations can support multi-grading.

Producer organizations may also be able to protect livelihood rights. Should a larger EU importer be able to set aesthetic standards for apples, citrus fruit, peaches, pears, strawberries and tomatoes. In 2008, the European Union removed its regulation on 26 other vegetables so that growers no longer needed to provide not too curvy cucumbers and

3) Focus on Intraregional market—Economic Community of West African States, Common Market for Eastern and Southern Africa, West African Economic and Monetary Union, Southern Common Market (MERCOSUR) that all offer opportunities to grow intraregional trade

4) Focus on South to South technology transfer

Cede Greenhouses in South Africa has a tunnel greenhouse called the Africa house designed to withstand harsh growing conditions

Researchers at Universiti Sains Malaysia (USM) say they have developed FruitPlast by converting tropical fruit waste into flour, which is then fabricated into

biodegradable plastic film. The plastic manufactured from these fruits stands up in both tensile strength and 'elongation at break' level, compared with normal plastic wraps, according to the scientists. The bags, which naturally degrade in three to six months and last one to two years on the shelf, cost 10% less than the current non-biodegradable plastic bags commercially used.

Small-scale there is also the need to provide for more access to simplest technologies. Mohammed Bah Abba designed a "zeer" which is an evaporative cooler based on two vessels separated by wet sand which is re-wet twice a day and which extended shelf life of vegetables from 2 days up to 20 days.

Another simple technology that does not represent a South to South transfer but represents a significant North to South transfer is a product from Purdue University called the Purdue improved Cowpea Storage that is essentially three nest bags which are used for storage but which kill pests by depriving them of oxygen. These bags are now being produced widely in places such as Nigeria and the project is being scaled up.

5) Focus on defining waste Bycatch problem -- Law Need to define the problem as including all unmanaged catches in order to protect the resource . Bycatch used to refer to discards that were not target catch. Today's catch was yesterday's bycatch and there still is very little coordinated management of bycatch. Massive bycatch rates that could be effecting the ability of developing countries to supply protein. For example, bycatch rates in a 2009 paper indicated that Bangladesh had a bycatch rate for a shrimp trawl fishery at 95.7% , 57.9% for a shrimp trawl fishery in Brazil,, 56.3% for India, 62.6% for Indonesia., 56% of Malaysian trawl catches, 60% of Pakistani trawlers, 31.2% of Phillipine catches, 64% of Thai trawl catches, and 80% of all Vietnamese catches. . Not all bycatch is discarded so it doesn't necessary amount to full waste—but it raises issues of loss—these kinds of numbers create a problem in terms of management of a fishery since it becomes unclear how to manage because there is so little attention given to identifying what species are in the bycatch and how they interact.