ZW Community Principles

GLOBAL PRINCIPLES FOR ZERO WASTE COMMUNITIES [3]

This document outlines the principles and some of the practical steps being taken around the world in both large urban communities and small rural communities in the pursuit of Zero Waste. Zero Waste programs are the fastest and most cost effective ways that local governments can contribute to reducing climate change, protect health, create green jobs, and promote local sustainability.

There are three overarching goals needed for sustainable resource management.

1) Producer responsibility at the front end of the problem: industrial production and design.

2) Community responsibility at the back end of the problem: consumption, discard use and disposal.

3) Political responsibility to bring both community and industrial responsibility together in a harmonious whole.

Zero Waste is a critical stepping-stone to other necessary steps in the efforts to protect health, improve equity and reach sustainability. Zero Waste can be linked to sustainable agriculture, architecture, energy, industrial, economic and community development. Every single person in the world makes waste and as such is part of a non-sustainable society. However, with good political leadership, everyone could be engaged in the necessary shift towards a sustainable society.

Good political leadership in this matter involves treating citizens as key allies to protect human health and the environment and in making the transition to a sustainable future. Governments need to "govern" rather than attempt to "manage" this change to sustainable resource conservation practices. This includes a significant investment in public outreach and education so that citizens can help communities make the most informed choices.

The ZWIA definition of Zero Waste.

The only peer-reviewed internationally accepted definition of Zero Waste is that adopted by the Zero Waste International Alliance:

"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."[4]

Zero Waste involves moving from the back end of waste disposal to the front end of resource management."If a product can't be reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned, or removed from production."[5]

Principles and Practical steps towards Zero Waste.

We encourage ALL communities to:

1. Adopt the Zero Waste definition of the Zero Waste International Alliance:

"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."[1]

2. Establish benchmarks and a timeline to meet goals for measuring success and monitoring accomplishments. Communities should aim to make significant strides within five years and to invest local resources and leadership in achieving tangible and visible accomplishments that demonstrate to the public this new direction as quickly as possible. Some communities have adopted as a goal diverting at least 90% of waste generated from landfills and incinerators within 10-15 years of adoption of a plan. Others have adopted longer timelines such as the goal in the Urban Environmental Accords of achieving Zero Waste by 2040.[2] A key part of the planning process is establishing what is a reasonable goal for your community while recognizing the urgency of moving quickly to address climate change.

3. Engage the whole community. It is important not to leave Zero Waste to "waste experts." Many different skills need to be deployed in the movement towards Zero Waste and sustainability. Everyone has a role to play. Citizens or communities need to take the leadership role in organizing meetings to engage all sectors of the community. All organizations (nongovernmental organizations, grassroots movements, business and governmental) that provide waste reduction, takeback, reuse, recycling and composting services should be involved in order to achieve Zero Waste. All of these groups and individuals should be challenged to pursue Zero Waste at home, at school, at university, at work and at play, while their communities develop longer term policies and programs for the entire community. Existing service providers should be asked to adopt Zero Waste as a goal and seize the opportunities to reduce waste, provide takeback services to local manufacturers and retailers, and to help communities and businesses get to Zero Waste. The communication with all sectors of the community should be permanent, in all planning and implementation phases of the Zero Waste plan.

4. Demand decision makers manage resources not waste. Existing incinerators must be closed down and no new ones built. Landfill practices must be reformed to prevent all pollution of air and water including pre-processing all residues at landfills before burial to stabilize the organic fraction and prevent methane generation and the use of Residual Separation and Research Facilities (see #8 below). However, facilities such as these should not be used to pre-process discarded materials before going to incinerators or any thermal treatment technologies.

Landfills are a major source of greenhouse gases (particularly methane, which warms the atmosphere 23-72 times more quickly than carbon dioxide[iv]as well as ground contamination.Incinerators and other burning and thermal treatment technologies such as biomass burners, gasification, pyrolysis, plasma arc, cement kilns and power plants using waste as fuel, are a direct and indirect source of greenhouse gases to the atmosphere and turn resources that should be reduced or recovered into toxic ashes that need to be disposed of safely. Neither landfills nor incinerators are an appropriate response to the challenge of peak oil, which will make any new incinerator impractical within its lifetime, as embedded energy and oil within products will become too costly to replace.

More energy can be saved, and global warming impacts decreased, by reducing waste, reusing products, recycling and composting than can be produced from burning discards or recovering landfill gases. Communities should fight any effort to introduce new incinerators, in any guise, and replace existing landfills and incinerators, with Zero Waste policies and programs, including EPR, resource recovery parks, reuse, recycling and composting facilities.

5. Use economic stimulus funds and fees levied on tons of waste hauled or landfilled to fund programs to educate and train Resource Managers to use a Zero Waste approach, to develop programs for handling community discards, and to create green jobs and to enforce environmental rules.

6. Educate residents, businesses and visitors. Zero Waste is a strategy not a technology. As such, it aims for better organization, better education and better industrial design. To achieve the cultural change needed to get to Zero Waste, communities must establish programs to educate and train residents, school children, college students, businesses, and visitors about new rules and programs.

7. Perform Zero Waste Assessments. Communities should conduct a waste audit to find out the amount and type of waste being produced in their community. Data can be collected locally or obtained from comparable communities if funding is not available. These audits should be used as a baseline to identify recovery and employment opportunities, cost savings and measure the success of the reduction and recovery program. Evaluate what additional source reduction, takeback, reuse, recycling and composting programs and facilities are needed to make those services more convenient to users than mixed material collection and disposal services.

8. Build Residual Separation and Research Facilities. In the interim phase, residuals should be sent to Residual Separation and Research Facilities before the remaining inerts are allowed to be buried in a landfill designed to have no air or water emissions. These facilities should act as a way of linking community responsibility to industrial responsibility. If the community can't reuse it, recycle it or compost it, industry should take it back itself for reuse, recycling or composting, or design it out of use. Costly incinerators attempt to make these residuals "disappear."In a Zero Waste program, the residuals need to be made very visible, since they represent either bad industrial design or bad purchasing habits, both which have to be changed through a dedicated research and educational effort.

9. Develop New Rules and Incentives to move towards Zero Waste - Communities can significantly change what is "economic" in the local marketplace with new policies, new rules and new incentives. Communities should restructure contracts and policies to make the avoided costs of collection and disposal a key engine for moving towards Zero Waste.

10. Enact Extended Producer Responsibility (EPR) Rules. Communities need to help and encourage local businesses to take back products and packaging at their stores and factories from consumers. They should also advocate for state and national EPR policies and programs for brand-owners and producers. As much as possible,

discard management costs for products and packaging that are difficult to reuse, recycle or compost in most local programs should be shifted from local government to the producers of the product. This gives producers the financial incentive to redesign products to make them less toxic and easier to reuse and recycle. Products and packages that cannot be reused, recycled or composted locally or are toxic should be required to be taken back at the point of sale or facilities set up by producers to conveniently receive those products at no cost from the public. All products and packaging taken back need to be properly reused, recycled or composted. EPR policies should not allow producers to export harm to countries with lower environmental standards. EPR policies should foster collaborative programs to be developed with support of small, local businesses and nonprofits, and not just rely on a single entity for reuse, recycling and composting.

11. Remove government subsidies for wasting - Governments, particularly in the US, have adopted many tax incentives to encourage mining and timber harvesting, which are no longer needed and subsidize the wasting of resources. Governments have also subsidized incinerators under the guise of "Energy from Waste" when in fact such facilities waste energy. Government regulations of landfills have also inadequately addressed leachate, methane generation and perpetual long-term care, which is an indirect subsidy for wasting. Community adopted garbage rate structures have also made it cheaper to waste than recycle, rather than adopting Pay As You Throw incentives [7] Communities should remove the subsidies for wasting in its control, and call for the removal of all these other subsidies.

12. Support Zero Waste Procurement - Local governments should adopt the Precautionary Principle for municipal purchasing to eliminate toxic products and services; purchase Zero Waste products and services; avoid single use products and packaging; return to vendors any wasteful packaging; reduce packaging and buy in larger units; use reusable shipping containers; purchase reused, recycled and compost products; buy remanufactured equipment; lease, rent and share equipment; buy durables (using life-cycle cost analyses); and encourage businesses and institutions to follow these practices as well.[8]

13. Expand Zero Waste Infrastructure

1. **Zero Waste Infrastructure** - Local governments and stakeholders should be involved in developing locations for reuse, recycling and composting businesses to collect and process materials, manufacture products, and sell products to the public, including Resource Recovery Parks.
2. **Support Reuse Businesses, NGOs and citizens groups** – Identify, help expand and help promote reuse businesses, non-governmental organizations (NGOs) and citizens groups. Focus on the ***value*** of reusables, not just the tonnage of products in that stream. Establish efficient repair and reuse programs to retain the form and functions of products. Help reuse products for their original intended use as a priority.
3. **Get Compostable Organics out of Landfills and back to the soil** (including garden clippings, food scraps, food-soiled paper and clean wood waste) – Organic materials produce methane and other landfill gasses. Communities should adopt policies and programs to achieve this goal by 2012.[9]Encourage Planning Departments to support farming over subdivisions and consider composting a crop. Where possible small local composting operations should be preferred to large centralized facilities. Compost should be used locally to grow food and restore the soils to enhance food security, local self-reliance and sustainability. By sequestering carbon in soils and decreasing use of irrigation, pesticides and fertilizers, composting further helps to reduce the emission of global warming gases.
4. **Support Zero Waste practices at businesses and institutions** - Communities should require all businesses and institutions to subscribe to Zero Waste services, require that recycling and separate hauling services are provided universally to all of them, and require that discarded materials are source separated to retain the highest and best use of those materials.
5. **Construction, Demolition, Landclearing and Remodeling (C&D)** - Adopt deconstruction, reuse and recycling policies citywide (including requiring all contractors to submit plans and deposits to meet community targets), and implement programs and facilities needed to achieve Zero Waste. Work with Green Building programs to prioritize deconstruction and reuse, and to require all new buildings to provide space for recycling containers.
6. **Locally owned and operated local enterprises.** Wherever possible communities should support locally owned and operated community enterprises, to manage and use local discards sustainably and create jobs and training opportunities in the local community.

14. Challenge Businesses to lead the way to Zero Waste – Thousands of Zero Waste Businesses already divert over 90% of their wastes from landfill and incineration around the world. [10] Zero Waste Businesses are reducing their costs of managing resources and discards, increasing their operating efficiency, decreasing their

carbon footprint (including energy use) and decreasing their long-term liability. Identify, recognize and promote Zero Waste Businesses locally and challenge others to follow.