



# HOW TO CREATE A RECYCLING PROGRAM



The U.S. Agency for International Development's (USAID) Sustainable Coastal Livelihoods Project created a grassroots program for rural communities to recycle materials and compost organic waste. Why? To improve sanitation, reduce resource use and minimize environmental pollution.

In the project's two test villages, Ban Phukhao Thong and Ban Tub Nua, there was progress in the very first year. With their community-based waste management program, the villages decreased the amount of garbage tossed into their local dump and took pride in how much neater and cleaner their villages looked. The program encouraged people to collect recyclables and organic materials and then sort, process, and later sell them. Profits were shared amongst families that contributed materials for recycling, community members who collected materials and managed the program, children's programs, and the mosque fund. The success in these two villages may spur the start of waste management programs in other communities.

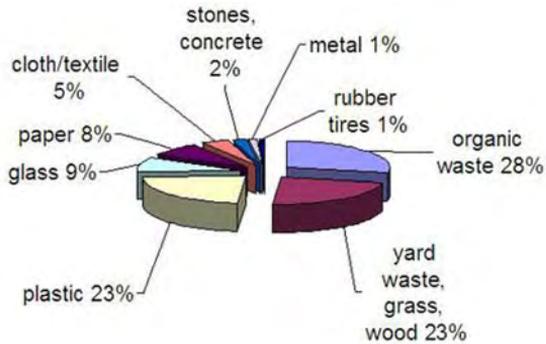
A long-term community outreach effort was a key element of this waste management program. It included a needs assessment, feasibility study, stakeholder buy-in, awareness-building campaign, and skills development program. Periodic reviews of lessons learned improved the program even more.

## THE STEPS TO RECYCLING

### ANALYZE THE WASTE

Understanding the waste stream is an important first step in recognizing the types of products the community uses and which products would be the most beneficial to recycle. This is also an excellent outreach tool because the villagers can begin to see the type and volume of waste they produce each day and how the proper disposal of this waste can help create a beautiful community and generate income for the community.

## TYPES AND PERCENTAGES OF WASTE



*Each community must make an inventory of the type of waste it regenerates.*

Analyzing the waste stream is an important first step in deciding what the community has to recycle and which of it is the most beneficial to recycle. This is also an excellent outreach tool. It lets villagers get the full picture of the waste they produce each day. And, it gets them thinking about how—if they wisely manage this waste—they can create a more beautiful and healthy community and at the same time make money. Make this analysis at both the household and village/Tambon Administrative Office level. Preliminary results of your analysis will show you which municipal and household wastes have high potential for reuse or recycling—by composting garbage or selling the recyclables.

### The Individual Household

Ask individual households to separate their waste by type for one week. Typical categories include plastic, glass, metal, paper, organic, and other materials. At the end of the week, count and weigh the separated household wastes. Record this information. This helps in understanding the recycling process and helps build a team. It also gives each family a view into what they use, the type of food they eat, and helps them begin to think about how this could be reduced and/or recycled.

## The Village Dump

Analyze community waste at the dump site. The dump can be a municipally-designated site or an informal area of the village set aside for dumping. Separate and weigh the waste, then record the results for analysis. Collect random samples from the dump and fresh municipal waste from a collection truck. Separate the waste samples manually into piles and categorize the wastes into main types including: organic or kitchen waste, plastic, paper, gardening, glass, metal, etc. Lastly, weigh each group separately.

### IDENTIFY WHICH PRODUCTS TO RECYCLE

There are many types of materials that can be recycled. Typically, community-based efforts focus on bottles, cans, paper, and plastic. Why? Because we seem to generate a large number of them and they are easy to sell! Each product has a different resale value. Villagers learn early that “Plastic is not trash, it is gold.” Beverage bottles, for example can be cleaned and sold for money. Many types of bottles can be reused such as glass beverage bottles and plastic motor oil bottles.

## REASONS TO RECYCLE

- **“Plastic is not garbage, it is gold!”**
- **It is a community member’s civic duty to reduce environmental pollution**
- **Recycling is consistent with the King’s “sufficient economy” program**
- **Generates revenue (or symbol for Baht-Baht-Baht) that can be socially reinvested for village improvement**
- **Reduces the volume of solid waste that ends up in the community dump and can cause contamination of ground water**
- **Creates leadership opportunities and income for a local recycling group**
- **Promotes a useful savings mechanism when linked to a Waste Bank program**
- **Encourages generational behavior changes by increasing awareness among children**

## UNDERSTAND THE MARKET FOR RECYCLED GOODS

### Identify Existing Local Recycling Centers

Find local businesses and individuals that are collecting and selling recyclable items. Ask, where do they collect the items? Who do they sell them to? For how much money? These people could become partners with the village in their new waste management venture—combining efforts to increase the volume of materials/products they have for sale. Or, perhaps, one of them might become the “middle man,” or the link between the village (seller) and the buyers.

### Identify Possible Partnerships

An excellent way to recycle products that end up as household and community waste is to think BIG. Partnering with a private business can help you scale up your waste management operations *and* it can be very profitable. One example of this is in Songkla Province, where a community-business partnership has been developed with Wangpanit, a large-scale, established private sector business that partners with municipalities to buy many kinds of recycled materials.

#### IDENTIFY A COLLECTION STRATEGY

##### Household Separation

Separate your waste as part of your daily activities and store them at home until collection day.

##### The Collection Site

Decide if people need to come to the collection site at designated times or if the site is open all the time. The site must be managed effectively to ensure it stays clean and that materials are sorted and sold. Ideally the site is enclosed to prevent theft and animals getting into sorted waste.

### A GUIDE TO THE SELLING PRICE OF RECYCLABLES

<u>ITEM</u>	<u>BAHT/KG</u>
Aluminum can	47
Plastic bottle	18
Color plastic	8
Transparent plastic	12
PVC	4
Paper	3
Zinc	1
Electric wire	30
Steel	6
Fishing net	14
Aluminum	50
Glass bottle	0.5
Lead	27

## Collection from each home

A buyer could go house-to-house to buy separated waste and then load it into a cart, car, or truck to be taken away and sold. Collections can be managed by a committee, a hired individual, or the municipal waste collector.

### REMINDERS

Always make sure materials are clean so they do not attract flies or animals. And remember, cleaned and sorted items bring a higher selling price. You need to clarify if each household should clean the materials or if they will be cleaned at the collection site by the committee or vendor.



*On recyclables collection day, villagers gather recyclables and sort them into categories. By selling greater volumes, they can receive a higher price.*

# CREATING A COOPERATIVE SYSTEM

## CREATE A PILOT ACTIVITY

Practitioners can begin their recycling program by creating a small pilot activity with a limited number of villagers. This small group practices and improves the system before engaging with the entire community.

1. First identify a small number of households willing to participate in the pilot recycling effort.
2. Select a few items to recycle at first. Choose items that are used frequently and are easy to sell—for example plastic bottles, aluminum beverage cans, or white glass bottles.

## CREATE A WASTE BANK

Waste banks are a great way for your community to develop its own recycling project with local members of management. You can use five basic steps:

### **First, set up a community committee to lead the planning, management and implementation**

- The committee can be semi-formal or formally established as a microfinance group.
- Identify roles of committee members. Typical roles could include a chair, secretary, and treasurer.
- Have the committee determine the process for collection, selling, and payback.
- Committee members could begin as volunteers, but as the operation matures consider paying them for their time.

### **Collect and store materials so that they can be sold in bulk**

- The waste bank will collect materials from membership households.
- When selling to the market, remember that sorted and cleaned materials will demand a higher price than unclean and unsorted items.
- It is better to sort your materials and either sell directly to the market immediately or collect a larger volume and sell them in bulk.

### **Keep accurate records of both collections and sales.**

- In a waste bank book, record by individual the deposits made of recyclables.
- Assign each member an account number and keep records for each member.
- Record information about the type of garbage, weight, pieces, unit price, and payments received for the sales.



*Learning young On the way to recycle a can.*

### **Engage the children.**

- Give each child their own waste bank book. Have them contribute recycling items through their schools or through their households.
- As an incentive, have children collect recyclables in exchange for pencils, toys, and maybe even candy or ice cream.

### **Pay out money or goods to the clients.**

- Payment for recyclables can be made in cash or in household items, such as eggs and cooking oil.
- Have the committee determine the frequency of payments. Options could include immediately, monthly, or when a household accumulates a certain amount in their waste bank book.

*The committee provides eggs to a household, in exchange for recycled bottles and cans.*



## **EMPOWERING THE COMMUNITY AND ITS PEOPLE**

By managing your waste and recyclables, you build community and personal pride.

### **Community Outreach**

Think of holding a celebration of recycling with a “Waste Fair,” featuring games and prizes for children.. You can engage village health workers, school teachers, and religious leaders in the effort, and keep them actively involved.

An excellent example of a successful community outreach program is the day-long *Solid Waste and Recycling Exposition* sponsored by a recycling group from one of the villages of Taklang as a way of marking the end of Ramadan. Food and games were used to bring the community together in support of recycling and waste management. Children who used their waste bank accounts to save money enjoyed additional deposits when they won fun competitions of the day.

### Peer-to-Peer Exchange

Peer-to-Peer exchanges provide communities with an opportunity to visit other places to learn and to share their experiences, skills, and knowledge. Kamphuan villagers visited Songkla Province to meet with private, municipal and volunteer organizers and see their recycling operations. This provided an overview of the different activities associated with recycling, and the various types of community organizations that can help promote successful programs.

### Community Sharing

It is important to distribute benefits to the community, children, and mosques. Activities should be promoted by the community to benefit the community.

### Community Beautification

Provide new garbage cans for the community as needed. Often these are made from recycled rubber or plastic. Plant flowers and herbs using compost created by community members.

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## CONTACT US! JOIN US!

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