CHAPTER 7 BEHAVIOR CHANGE THEORY

INTRODUCTION

Change is hard

We surprise even ourselves when we act in ways that are contrary to our core beliefs. For example, on New Year's Day we vow to take the bus to work, but on January 4th when the alarm goes off, the car seems a whole lot easier. People like to behave with integrity, but struggle to make changes to their regular habits in order to match their actions with their beliefs. Psychologists refer to this as the **intention-behavior gap**. The intentionbehavior gap is the disconnect between knowing what you would like to do and actually doing it.

The environmental community often thinks that all that we need to do is give people information, and that will make them care enough to take action. Give everyone in the neighborhood a recycling brochure, and they will put all the materials in the right container after that.

Unfortunately, research doesn't show a strong correlation between having environmental values and acting on them. Harvard Professor Douglas Holt goes so far as to offer the cynical assessment that, "After 40 years of research that industriously sought out linkages between environmental concern and environmental behaviors, the answer is clear, the relationship barely exists."

TERM

Intention-behavior gap: A psychological term for the gap between the possession of knowledge, values and awareness, and behavior.

DEEP DIVE

Holt, Douglas. 2012. Constructing Sustainable Consumption: From Ethical Values to the Cultural Transformation of Unsustainable Markets, The ANNALS of the American Academy of Political and Social Science 2012 644: 236.



TERM

Social marketing: Theory and practice that seeks to develop and integrate marketing concepts with behavior science to benefit individuals and communities and further the greater social good.

DEEP DIVE

To more fully explore the fascinating field of social marketing you can search online for: communitybased social marketing (CBSM), ecopsychology, behavioral economics, and tools of engagement.

What works?

Whether it is getting folks to change the container in which they put waste, clean their home with non-toxic products, properly store food so it won't go bad, or fix something instead of buying something new, you as a Master Recycler will be challenging the very basic human tendency to resist change.

Let's be clear that Master Recyclers are not in the business of changing people's minds about the environment. We don't need to research shows that most people in our region are already open to recycling, composting, reducing toxics and consuming sustainably. This is fortunate because it is pretty tough to change a person's basic values.

The Master Recycler mission is to bridge the gap between intention and action by motivating people at home and at work to reduce waste. So we are in the business of helping people take the actions they already want to take.

You don't have to have a psychology degree to effectively change behavior. But it doesn't hurt to understand how people make decisions about taking new actions and changing behaviors. This chapter explores the relationship between the science of behavior and sustainable living. It will describe techniques that use this science to encourage behavior change. The techniques come from a number of **social marketing** theories and practices. The goal is to use science to help you motivate people to take action.

In a nutshell, research indicates that if you have had success in making pro-environmental changes in your own life, then you are well positioned to inspire those around you to make similar changes. You can do this by: 1) sharing your story about how you struggled and succeeded, 2) sharing your favorite places to go for resources and 3) helping build community support and systems for others to take action.

THE PROCESS OF CHANGE

Change is a process

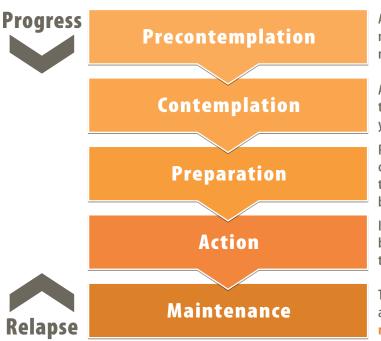
Before exploring some reasons that people act or don't act, it is helpful to understand the process that people go through in order to make a lasting change in their habits. The environmental movement tends to operate as if behavior has an on - off switch. The theory goes that one day we throw a tin can in the garbage; we learn that we should recycle; the next day we decide to throw a tin can in the recycling and we never look back. Environmentalists who assume that information is the key to change get frustrated when people don't act in a way that is known to be good for the environment.

Health psychologists, however, have known since the 1970's that most people don't go from inaction to action just because they receive a piece of information. Rather there are stages to behavior change.

According to the Transtheoretical Model of Behavior Change there are five stages on a spectrum of readiness to act. These stages are: precontemplation, contemplation, preparation, action and maintenance. This model proposes that people must build up the motivation and knowhow to change and that this motivation is dependent on a number of personal and social factors. (Note: This model was developed in the field of public health, so it refers to healthy and unhealthy behaviors. You can substitute sustainable and unsustainable.)

DEEP DIVE

More information about the Transtheoretical Model of Behavior Change is available online in **Stages of Changing Unhealthy Behaviors**. Boundless Psychology.



STAGES OF CHANGING UNHEALTHY BEHAVIORS

At the **precontemplation stage**, an individual may or may not be aware of a problematic behavior, and generally has no desire to change their behavior.

At the **contemplation stage**, participants intend to start the healthy behavior but are still ambivalent. They have not yet committed to take action.

People at the **preparation stage** have decided that they are committed to make a change, and take small steps that they believe can prepare them to make the healthy behavior a part of their lives.

In the action stage, people are trying out the new behavior, experimenting, and working through challenges to keep moving ahead.

This model recognizes that even after a person takes the action for the first time, they must then commit to a **maintenance** process, which is the final stage.

Importantly, the progression through these stages is not strictly linear. People may move back and forth between the stages as their motivation changes or as they run up against various barriers. Often people relapse in their behavior multiple times or may get stuck in one of the stages.

Environmental behaviorists believe that the best strategy for change is to identify some of the moments in this continuum when an intervention, such as a tool or piece of information, might help move a person through a barrier and motivate them to move to the next stage.

So, how might these stages actually play out? Let's take a closer look at the five stages in the context of a desired behavior change. We'll observe the visible behaviors and also speculate about the thinking that might produce these behaviors. Because we can't know what other people are thinking just by observing their behavior, we have included multiple possible explanations, even though these might be overwhelming.

Desired behavior: Keep plastic bags out of the recycling.

Precontemplative stage:

What it looks like: Plastic bags are in the mixed recycling.

Possible beliefs and thoughts: Not aware that bags cause problems for recycling and are a safety hazard to workers. Believes that sorting recycling is difficult, takes time, or doesn't make a difference. Believes that plastic bags belong in the recycling. Puts plastic bags in the recycling because they see bags there already. Uses plastic bags to collect and carry their recycling from the kitchen to outside containers.

Contemplative stage

What it looks like: Plastic bags are in the mixed recycling.

Possible beliefs and thoughts: Learned that plastic bags don't go in the recycling, but not sure if they are concerned enough to change their behavior. Believes that sorting recycling is difficult, takes time, or doesn't make a difference. Wonders how bad it really is to put plastic bags in the recycling. Doubts the source where they learned you shouldn't put plastic bags in the recycling. Sees plastic bags in other peoples' recycling containers. Detests the idea of putting plastic bags in the garbage. Believes that the City or hauler or recycler should figure out a way to recycle plastic bags.

Weighing alternative options. Not sure how else to get recycling from the kitchen to the outside containers. Not aware of waste prevention and alternative recycling options. Wondering if waste prevention and bringing plastic bags to alternative recycling locations is time consuming, takes up space or is unsanitary. Wondering if they bring plastic bags to a store will they really recycle them or just throw them away. Questioning if the production of durable bags and washing and reusing bags is better or worse for the environment.

Preparation stage

What it looks like: Plastic bags are in the recycling, or plastic bags are piling up in the kitchen, or plastic bags are in the garbage.

Possible beliefs and thoughts: Committed to not putting bags in the recycling. Talking to everyone in the household, apartment complex or office about making the switch. Asking people they know about alternatives. Looking online or making phone calls to learn about alternatives. Shopping around for an environmentally friendly or affordable reusable bag. Looking for a free durable bag. Creating a space in the kitchen to store and dry plastic bags. Looking into alternative options for carrying recycling to the recycling containers.

Action stage

What it looks like: Plastic bags are never or only sometimes in the recycling.

Possible beliefs and thoughts: Trying out the various options. Some people in the household, apartment complex or office have made the switch and some have not. Forgetting sometimes to put plastic bags in their new place. Feeling good about making the change. Feeling frustrated with the mess or fuss. Starting to notice that they use a lot of plastic bags because they are focused on them right now (this can lead to a decision to reduce the use of bags rather than just recycling them).

Maintenance Stage

What it looks like: Plastic bags are never or seldom in the recycling.

Possible beliefs and thoughts: This is something we do. Setting up a plan to inform new roommates, tenants or co-workers. Regularly taking plastic bags to recycling depot or cleaning reusable bags.

BARRIERS, BENEFITS AND SOCIAL NORMS

Environmental psychologists find that people will move from one stage to the next at different rates. Some people are early adopters, innovators and tinkerers and readily try new things. Most of us however, tend to move slower. Environmental behaviorists explore the sometimes unconscious reasons why people get stuck in a stage and what might motivate them to move forward. Only after understanding the benefits, barriers and pertinent social norms do they design programs, systems and strategies to address those specific issues.

Barriers and benefits

To take a new action or even move to a deeper level of commitment to take the action, people weigh the benefits and motivations against the barriers and costs of changing what they habitually do. They usually make this comparison in a completely unconscious state. It is as though they are mentally and emotionally collecting pebbles to place on a scale. Each pebble is placed on either the change side of the scale or the inertia side. If there are enough pebbles to tilt the scale from inertia to change, then they can move onto the next stage. One task for those of us wanting to help people to make change is to identify barriers that block people from taking the desired action and see if we can avoid, minimize or remove that barrier. There are several types of barriers.

Structural barriers

Some barriers to action are physical or structural. In some parts of our country recycling markets are not easily accessible. It becomes economically infeasible for the local government to build a collection system for recycling if there is a lack of local recyclers who will process the material, no local industry, and no port to easily get the materials to another area of production. Some local governments have also set up the collection system so that it costs the same, or even more, to place materials in the recycling container rather than the garbage. The lack of recycling infrastructure and charging to recycle are true barriers for many in the US.

In our state, recycling markets for the core materials accepted at curbside are strong, and the state offers a pay as you throw system, meaning you pay for the collection system based on the amount of garbage you throw out. So those two barriers are removed for many in our region. However, some communities still experience structural barriers. Consider the large apartment complex where the property manager and the local hauler have not communicated well and have not set up adequate recycling containers with clear signage. For people living in that complex, the recycling containers, overflowing with both garbage and recycling, is a structural barrier to getting their materials to a recycler.

Fear of risk and sacrifice as a barrier

Through researching benefits and barriers accounting, scientists have concluded that humans tend to resist change and avoid risk. We typically underestimate the benefits of changing and overestimate the costs. Short term gains are also typically given much more weight than long term solutions. So if we hear about, or even guess at, potential risks or costs associated with a change we are likely to avoid it, even when we believe it is the right thing to do. We will sometimes stay in intensely uncomfortable situations for a long time before we are willing to take the risks associated with a change.

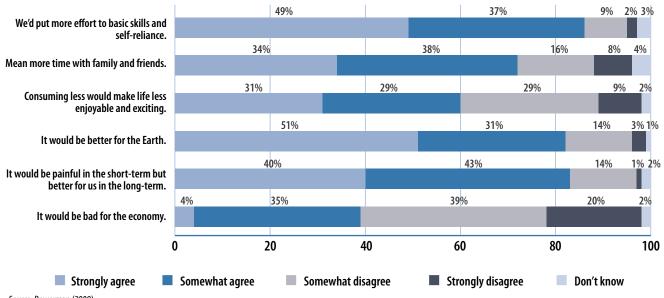
Conservation movements have a long tradition of working counter to human psychology by calling on the public to sacrifice individual wants for the greater good of the planet. But even when President Jimmy Carter laid out the extreme costs of our level of energy consumption during the energy crisis of the 1970's, his message that we must sacrifice for the future fell flat for many Americans. Americans were generally unwilling to sacrifice present comforts for future benefits, even though President Carter had the weight of the Presidency on his side and many people were fed up with gas lines and international power struggles over oil. Even in these extreme circumstances the message of sacrifice was ineffective.

Happily, in the work we do as Master Recyclers, there are plenty of alternative ways to talk about actions and behavior change that don't focus on sacrifice. You will be learning about these later in the chapter and throughout the course.

Benefits: Make it positive

Choosing messages that describe actions that people can clearly see themselves taking can help make those actions seem easier. Two recent local polls showed that Oregonians want to consume less, but if this behavior change is framed as giving something up, most people are unlikely to change.

The first study was a statewide poll of a demographically, geographically and politically representative sample of Oregonians (see Tom Bowerman graph). Residents were asked a series of questions about what they thought might happen if Americans "consumed less." Democrats and Republicans alike felt like it was the right thing to consume less. Eighty-five percent of those polled felt that it would be good for the earth if we consumed less. There was also a sense that it would build self-reliance and enable more time with family. But despite those anticipated benefits people felt that consuming less might make life less interesting and would be hard in the long run. They were fairly split about whether they thought the economy would suffer if we consumed less. These are troubling results if we want people to do more than think about consuming less.

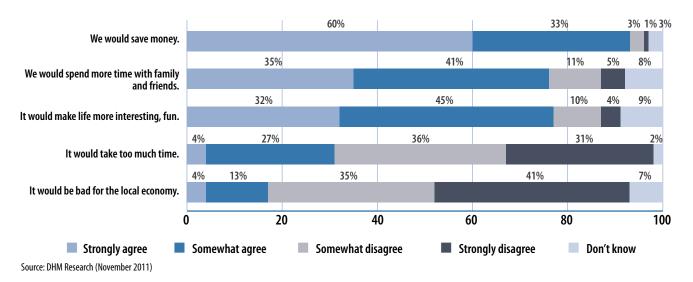


PERCEPTIONS ABOUT CONSUMING LESS – BOWERMAN 2009

Source: Bowerman (2009)

SYSTEMS • CHAPTER 7 BEHAVIOR CHANGE THEORY

The second study, however, shows that if this change is framed in a way that highlights benefits rather than sacrifices, that people are much more likely to change their behavior. A demographically representative sample of Portland residents were asked about how willing they would be to reuse, borrow, share, rent or fix and maintain. After they discussed their willingness to try some of these activities, they were asked what they thought would happen if Portlanders did these activities.



PERCEPTIONS ABOUT RESOURCEFUL ACTIVITIES

Like the Bowerman study, this study showed that people have a strong association with these activities and protecting the environment. But it also showed that they believed these activities would give them more time with their family, save them money and would make life more interesting. They also did not agree that it would necessarily be hard to take these actions, and they disagreed fairly strongly that it would be bad for the economy.

While this is only one study, it suggests that framing the solution positively, in terms of benefits, can be much more effective. The first study focused on people consuming less. This sounds a lot like giving something up. The second study described the desired activities in simple words and focused on things you would be doing rather than things you would be giving up. These actions seemed clear and easy to do and there was little perceived risk.

Benefits: Emphasize a variety of values

If we believe that an activity matches up with our existing core values, we will be more motivated to change. Similarly, if we believe that an activity is contrary to our core beliefs about who we are, we are not likely to even consider taking the action. People draw on many sets of beliefs – religious, cultural, ethical, environmental, economic – when deciding what that right thing to do is.

When promoting an action, it is important to apply a number of positive values to the activity rather than focusing just on the environmental benefit. If they do not consider environmentalism a core value, you will lose their attention. This is why you find a person that is actively biking to work, but throwing recyclables in the garbage. If you think that they are biking for environmental reasons, it mat seem odd that they wouldn't also recycle. But perhaps they are biking for exercise, they don't have a car or they enjoy biking in the company of their coworkers. It doesn't really matter to the environment.

Making climate-friendly food choices is good for our planet. It is also good for your family's health, better for our small farmers, keeps workers safe from pesticides and the food tastes fresh. But you have to pick your battles. Some activities will go against a core value of a large number of people. For instance, the most climate-friendly food choice you can make is to stop eating red meat. But research shows even in Portland, that many people will stop the conversation altogether when asked to consider this action. From hamburgers to carne asada, red meat is part of many family cultures. Instead, you may have focus on activities that are more broadly appealing, such as eating more unprocessed fruits, grains and vegetables.

Social norms

As social animals, it is important to us that we fit in. We are strongly compelled to live and act in a way that is socially acceptable to others in our community. People in the precontemplative and contemplative stages will consider what they perceive their peers and leaders think when deciding whether to take an action. It is important to understand how norms work in order to assure that you are not asking people to act contrary to what they consider socially acceptable behavior.

How do you think we understand what is normal in our community? What clues do you personally use to understand what is okay? From a young age we navigate our community's sense of right and wrong. Some of this is done through explicit communication ("We don't throw food."), while much of it happens through more subtle clues and observations (No one else seems to be throwing food).

Values and concepts that appeal to many Portlanders: Personal well-being Saving money Health Family Community

Environment

TERM

Norm: 1: an authoritative standard. 2: a principle of right action binding the members of a group and serving to guide, control, or regulate proper and acceptable behavior.

Prescriptive norms

One way people understand what is acceptable behavior in the community is by listening to people they trust. Community leaders, authority figures and peers will tell people what they think is *the right thing to do* and so they believe it. Psychologists call this a prescriptive norm. People may even adjust their core values based on what they hear from trusted sources.

Community-based social marketers will utilize trust in community leaders by asking various figures to act as ambassadors of a message. Sometimes this is done by creating ambassadors to carry a message (like Smokey the Bear asking people to prevent forest fires) or by asking existing ambassadors to promote a cause (like Michael Jordan supporting Boys and Girls Club).

Prescriptive norms do not just come from leaders in a community. We also learn about what is right from peers. In this case, community-based social marketing may involve showing people who are similar to the intended audience, declaring that they voted, or gave blood or recycled, because they think it is the right thing to do.

This is one of the most powerful aspects of the Master Recycler program. Master Recyclers are members of diverse communities all over the region who wear a badge in order to show that you think that it is important to conserve our natural resources. You are all powerful and valuable ambassadors.

Descriptive norms

Another, more subtle way that people come to understand what is normal is through descriptive norms. People look for visual clues and other information that conveys what people around them think is normal. We will use littering as an example to illustrate how descriptive norms work. Studies have shown that people will walk down two different streets and make different decisions about what they should do with their trash. If there is already a lot of litter on the ground, many people will conclude that is acceptable and will litter, even when there are garbage cans and do not litter signs. If the street is pristine, people have been shown to carry their garbage a long distance instead of littering. Community-based social marketers would state that you need both the garbage cans with do not litter signs and consistent pickup of random trash to effectively stop litter. That way you have made the task easy, and the descriptive norms are consistent with the desired behavior and the prescriptive norms (that is, the do not litter signs).

Community-based social marketers feel that it is important to actively display environmentally friendly behavior as something everyone does. People can see their neighbors' solar panels. Helmets, bike bags and rain gear in the office are visual social cues that bike commuting is normal. But some actions are less visible and so may be perceived as not happening. You cannot see that your neighbor has a pesticide-free garden or that they only put their garbage and recycling out once a month. Without prying into their desktop, you might not notice that your co-worker has switched to electronic filing. A common community-based social marketing strategy is to make visible activities that you cannot usually see by strategies such as signs, buttons and story-telling. For example, Metro's Pesticide Free Zone pledge includes a sign that you place in your garden so that people know that you have committed to not using pesticides.

Interestingly, misperceptions about what is normal can override what is actually normal. A study done by the National College Health Assessment demonstrates this phenomena. The study surveyed 76,145 students from 130 colleges. They asked the students how much they drink and how much they think their peers drink. They discovered that students believe that their peers are drinking more than they actually were. They also found that students felt that they had to keep up with the level they believed that their peers were drinking. So while the drinking was not at the same level as perceived, it was higher simply because of the misperception itself. The study concluded that schools that do not seek to reduce these misperceptions are neglecting a potentially powerful component of prevention.

These conclusions are directly applicable to the work of a Master Recycler. It is often perceived that most people don't care very much about recycling, and so maybe it is okay to occasionally join others and throw recyclables in the garbage. But when surveyed, the majority of the community considers themselves recyclers. The more that story is told, the more motivated people will be to place recycling in their proper container.

Why shaming does not work

Conservationists tend to believe that if you share data about what big consumers we are enough times, people will feel ashamed and stop. Perhaps, you've seen this dubious statistic that is found widely on the Internet and in public presentations: "Americans are big consumers: we make up 5 percent of the world's population and yet consume 95 percent of the world's resources." While this is clearly an exaggeration, the following statistic, which can be verified by the State of Oregon, is also commonly used to emphasize our overconsumption: "Oregonians throw away 3.5 pounds of trash every day." You also hear people trying to use shame to effect change in the break room with statements like, "No one in this office is properly sorting their recycling." Despite the frequent use of shame, behaviorists report that it is not an effective tool for behavior change.

Shaming has two main problems. First, it makes people feel bad without necessarily addressing the barriers that are keeping them from changing. Second, shaming can actually reinforce the sense that these environmentally unfriendly behaviors are normal. Americans, Oregonians and co-workers are peers. These statements make it clear that you will have to defy the norm if you want to consume less and produce less waste. Some people are willing to be unconventional in order to do the right thing, but many are not.

People are much more likely to take the environmentally friendly action if it is the right thing to do and they believe that it is also a normal thing to do. These are examples of ways to norm the desired behavior: "Oregonians are making a difference! We recycle enough to reduce the equivalent of 2.9 million tons of carbon dioxide. That's as if we removed 670,000 cars from the road every year." "Hey everyone, we are doing a great job working toward our goal of recycling in the office."



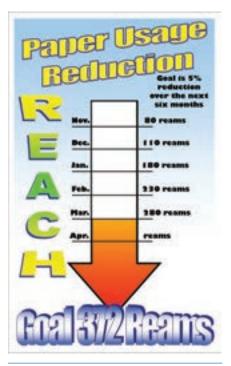
A grocery list is a tool that reduces food waste

Tools

TRICKS OF THE TRADE



Metro's Pesticide Free pledge



Progress chart builds team spirit

Tools are especially helpful in addressing barriers or helping form habits. If a barrier to riding your bike to work is feeling unsafe, then an effective tool might be a map of the safest routes and a buddy who will ride with you the first time. A grocery list is an effective way to help people plan their shopping so that they do not waste food. A recycling box next to your desk will make it easier to recycle a piece of paper, than if you need to walk to the recycling box in the break room.

Community-based social marketers use a number of techniques to emphasize social and personal benefits and remove barriers. By using a strategy that specifically addresses the barriers or benefits of the specific action, community-based social marketers believe they can propel

individuals and communities through the stages of change.

Commitments

People are more likely to take action if they publicly state that they plan to do it. It is also true that if people try something for about 10 weeks, they will have worked out the biggest problems and have discovered it is easier than they thought it would be. So a popular technique is to ask people to commit to try it for a given period of time.

Prompts

Even after we make the commitment, it is sometimes hard to remember to take the action. How many times have we planned to use a reusable bag,

but discovered when we got to the check stand that we left the bag in our car? Community-based social marketers use prompts carefully placed right where people are likely to take the action. Your car window or the parking lot of the store are great places for a decal that reminds us to take our bag out of the car.



Transactional benefits

Sometimes we just need a little coaxing to tip the scale of benefits. Wherever possible, it is helpful to offer some extra incentives. Integrating prizes, public recognition, gold stars, even discounts and cash are great ways to tip folks toward commitment, or to help them stay motivated to keep going. Sometimes just demonstrating a group's success toward a goal in a public way can help people feel more connected to taking that action.

COMMUNITY-BASED SOCIAL MARKETING CHECK LIST

Whether you are starting a green team at work, improving recycling in your apartment complex or trying to reduce food waste in your household, these steps can help you develop strategies that can make the project fun, positive and effective.

- Identify a go-to positive behavior you want people to do.
- Identify the barriers to the action.
- Identify who is doing the action and what they value.
- Create messages and tools that help overcome barriers and reinforce benefits.
- Get people to try it.
 - Set goals and give feedback.

CONCLUSION

Can you really make a difference?

Some reputable people will challenge the value of a chapter focused on environmental behavior change. They worry that it is not enough to focus on individual actions given the scale of the environmental challenges we face today. They are concerned that manufacturers will not be willing to make the shifts in priorities. They argue that energy is better spent on city design, buildings and policy.

To be sure, we are facing global problems that will require global and systemic solutions. Today's level of consumption is at a scale such that our very climate, which makes the planet habitable, is at stake. With our consumption of resources dramatically overshooting the earth's capacity to renew those resources, slowly changing behaviors can seem futile. The global economies and inequities that drive unsustainable consumption must be addressed.

In light of these systemic problems, it leaves a person wondering what difference they can make.

As individuals and community leaders, Master Recyclers can play a unique role in making much needed change on both a systemic and individual level. So far, the handbook has explained materials management on a systems scale. The next section describes how these systems play out in our lives. You will learn specific individual actions that will effectively conserve natural resources, curb climate change and pollution, and help all people live healthier more satisfying lives.

You will also learn how you can leverage this information to make the biggest difference, not only by supporting individual change, but also by navigating existing systems to build change at a community level.



Master Recyclers and the System

Some of the barriers to action that people face are systemic. It may be problematic to tell people in an apartment complex to recycle properly when their containers are overflowing and unclearly marked. Simple access to the necessary tools and resources are often lacking. An economy that prioritizes the growth in production sometimes also results in laws (or the lack of them) that prohibit the environmental actions we are promoting.

Policy, infrastructure and program design will be described throughout the handbook as well as by presenters in class so that you are informed about where current laws are lacking or even get in the way of taking action. You can share this information in your own community, act on advisory committees or even let your local officials and representatives know where you stand on policies. You can also learn how to make systemic change by voting as a consumer.

Building a community of change

We don't have to wait for government and manufacturers to build systems change. Master Recyclers create projects in their own communities that bring together internal strengths and resources needed to take action. Your community is rich in assets and skills that will be needed to create community change. The Master Recycler program partners with over 50 community organizations so that you can join in building community infrastructure that supports sustainable consumption. You will learn about tool lending libraries, repair fairs, the Rebuilding Center, Community Warehouse, Scrap, seed swaps, and Free Geek, all of which are avenues for helping people conserve natural resources.

You will also learn how to work in your own community of friends, family, place of work, apartment complex, community of faith or neighborhood to build smaller scale systems together. Organize a recycling collection day or a garage sale in your block. Start a green team at your work or kids' school. Even setting up an information booth at your local community gathering and connecting people to the resources they need to take action is helping build the community connections needed to make change.

Individual behavior makes a difference

Without a doubt, to bring systemic change, the systems must change. Laws and built environments must be designed to reduce consumption. But if people don't use them correctly, it could still amount to no change. Research shows that energy efficient buildings are only maximally efficient when the occupants learn to turn off lights, purchase efficient appliances and understand how to maintain the building. Cities have built compost facilities, created collection systems and then only get about 10 to 20 percent of the food recovered because people did not make the behavior change.

Climate experts at the Garrison Institute calculate that behavior change could amount to as much as 1 billion metric tons of carbon emissions reductions, which is not insignificant at 1/8th of what is needed to stabilize emissions. They are clear it is not all the change that is necessary, but it is a significant wedge of the pie, and one we cannot afford to ignore.

Individual behavior change is absolutely essential as is behavior change at the community level and these two kinds of change are interrelated. Supporting individual change and helping to build communities of change are the central concerns of Master Recyclers. You will all play important roles in helping individuals (including yourself) to make changes and in scaling those changes up to the community level. Sometimes this sort of change will lead the way and drive the development of new laws and policies, while other times it will be essential in ensuring that laws and policies produce the desired results.

The scope of our current environmental challenges is daunting, but be confident that you can and will make a real difference.