



Wood to Energy: An Outreach Program for Utilizing Interface Fuels for Bioenergy Outreach Program

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Contact:

Martha Monroe
 347 Newins-Ziegler Hall
 P.O. Box 110410
 University of Florida
 Gainesville, FL 32611-0410
 Phone: (352) 846-0878
 Email: mcmonroe@ufl.edu

Program Profile	
Program Description:	<p><i>Wood to Energy</i> offers a depth of well-researched resources for communities considering wood as a source of alternative energy. In particular, this program offers free, web-based outreach materials regarding the use of woody biomass as an energy source. The materials include fact sheets that cover various aspects of using woody biomass for energy, case studies and economic analyses of the use of woody biomass in select communities. The materials additionally give guidance on conducting outreach activities, such as creating community forums for discussion surrounding the topic. The audience for the materials includes groups such as extension services, natural resource or energy professionals, community leaders and citizens. The program particularly targets residents of the southeast United States, though the materials could be adapted for use broadly in the U.S. and beyond.</p> <p>The development of the outreach materials involved a four-year process that progressed from content research activities to stages of formative and summative evaluation.</p>
Program Goals:	<p>The goals of the program are to:</p> <ol style="list-style-type: none"> 1) Increase awareness and knowledge about using woody biomass for energy production 2) Enable community leaders, potential woody fuel users, biomass suppliers, and forest managers to discuss the possibilities in their region 3) Provide tools and resources as communities begin to plan for new opportunities.
Program Funding:	<p>The program is supported through a cooperative agreement between the US Forest Service, Centers for Urban and Interface Forestry; the University of Florida, School of Forest Resources and Conservation; and the Southern States Energy Board and is funded by a grant from the U.S. Departments of Energy and Agriculture.</p>
Program Links:	<p>http://www.interfacesouth.org/woodybiomass/</p>
Evaluation Profile	
Evaluation Goals & Questions:	<p>Throughout the various stages of creating the web-based outreach materials, evaluation techniques were used to improve the usability of the materials and assess their ability to change factors such as knowledge, perception and confidence of the users.</p> <p>Formative Evaluation Goals: The outreach materials were formed using several major stages of formative evaluation:</p> <ol style="list-style-type: none"> 1) Public Perception: The researchers measured public knowledge of and attitudes

	<p>toward wood energy. This feedback guided the content of the outreach materials, helping to identify the types of information most needed by the public, the potential misconceptions and areas of controversy.</p> <ol style="list-style-type: none"> 2) Community Forums: The organization of community forums helped the research team test ways of engaging the public in discussions about using woody biomass as an energy source. 3) Communication with Written Materials: A major output of the program is a collection of written materials, focus groups were formed to review the outreach materials. Researchers aimed to learn how the material was perceived and how it affected motivation to learn more. 4) Pilot Testing: Outreach materials and methods were pilot tested in three counties in three different states, with the goal of testing both the program content and the outreach process. 5) Expert Review: Almost all of the program materials were reviewed for accuracy by at least two content-related experts. <p>Summative Evaluation Goals: There were two stages of summative evaluation:</p> <ol style="list-style-type: none"> 1) After completion of the outreach materials, the researchers conducted a 2-day training program, which introduced participants to the program outreach materials. In the training evaluation, the researchers were interested in measuring: <ul style="list-style-type: none"> • Knowledge and perceptions of woody biomass issues • Confidence to conduct outreach programs • Assessment of program materials (relevance, uniqueness, usefulness, effectiveness) • Intention to use program materials • Demographic information 2) Six months after the training program, participants of the training program were asked to complete a follow-up interview. In these interviews participants provided the following information regarding the program materials: <ul style="list-style-type: none"> • Whether or not the program materials have been used • The kind of activities materials were used for (e.g. workshops, training) • Outreach audiences • Goals when using the materials (i.e. to raise awareness and educate others) • Barriers to using program materials • Future plans for using program materials • Program Strengths
<p>Evaluation Methods:</p>	<p>Formative Evaluation Methods: A variety of methods were used in the formative evaluation stages described above:</p> <ol style="list-style-type: none"> 1) To collect public perception data, mail-in surveys were sent to a stratified random sample of homeowners in Alachua County, Florida (19.6% response rate, n=298). 2) Structured observations were used to evaluate six organized community forums, which were conducted at public libraries in Gainesville, Florida, with at total of 172 community members participating across the six sessions. Participants also completed a pre-post survey (n=108). 3) Three focus groups (n=16) were conducted in Gainesville, Florida to evaluate the effectiveness of the written materials. 4) Pilot study feedback was gathered informally through interacting with community members and leaders. Methodologies were not consistent across the 3 counties. 5) Each fact sheet, case study, and community profile was sent to at least two content or location experts to make sure information was properly conveyed. <p>Summative Evaluation Methods: The attendees of the training program were the subjects for the two-stage program summative evaluation.</p> <ol style="list-style-type: none"> 1) During the training program, the researchers administered a retrospective-pre survey that 63% of the participants (n=49) completed at the end of the training. This one-time survey asked respondents to rate categories before and after training, thus the “before” values were assessed retrospectively. 2) Six months after the training program, training program participants were contacted

	to participate in semi-structured phone interviews (65% response rate, n=45). The qualitative results were analyzed with open coding qualitative research methodologies (i.e. content analysis with categorization of responses).
Instruments:	A complete set of evaluation instruments is available in the report.
How were results used?	<p>The formative evaluation results were used in developing the content of the outreach materials. They also informed the guidelines for conducting outreach in a community setting.</p> <p>Various formative and summative activities, such as pilot tests, community forums and training, tested the use of program materials in the world, which additionally informed how program materials would be delivered (via website and hard copy).</p> <p>No substantial content changes occurred after the summative evaluation, though several minor content gaps were addressed based on feedback (i.e., the development of additional fact sheets based on the questions asked from users of the materials). The summative results were used to demonstrate the success of the program to the funders and to form recommendations for the Forest Service as it continues to move forward with outreach programs such as this one.</p>
Evaluation Cost:	Implementation and evaluation were a tightly interwoven process. Approximately \$75,000, or 15% of the total program budget, was spent on both formative and summative evaluation procedures. Matching resources, such as faculty time, office supplies and office space, were contributed by the School of Forest Resources and Conservation at the University of Florida.
Evaluation Insights:	<p>What worked well? The program provides factual information regarding woody biomass as an energy source, and also provides a guide for taking this information to the public. The pilot testing of program materials was part of the formative evaluation, and was essential for forming and offering outreach advice particular to these program materials.</p> <p>What were important evaluation “lessons learned”? The qualitative data collection methods, the interviews and focus groups, were found to be the richest methods of collecting feedback, and well worth the time invested. Web surveys were attempted, but were ultimately unhelpful due to small sample size. This was particularly the case as researchers tried to sample a general population over a broad geographic range – the email distribution lists for such samples are either difficult to obtain or simply nonexistent.</p> <p>What could have been done differently? Maintaining a program that is true to educational goals was an ongoing challenge for the research team, who had to address charges of advocacy because of program/evaluation content and because of the inaccurately perceived harvesting motives of the funding source (United States Forest Service) and the affiliated university (School of Forest Resources and Conservation). Accordingly, one content area that could be improved is the composition of case studies, which only offer examples of communities that have chosen to use wood for energy. The primary researcher recommends adding the “nonexample examples,” or case studies of regions that considered woody biomass for energy and elected <i>not</i> to do it for particular reasons. It is additionally recommended that during the evaluation process, the community forums be hosted by a neutral sponsor and invite a diversity of perspectives – this would not only elevate the level of the discussion, but may also alleviate some concerns of solution advocacy.</p>
Profile information provided by:	Martha C. Monroe, Professor, University of Florida
Profile prepared by:	Laura Smith, PhD Pre-Candidate, University of Michigan
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