



**Means of Communication for Reaching Michigan’s Nonindustrial Private Forest**

**Landowners**

**Introduction**

Nonindustrial Private Forestland (NIPF) owners in Michigan have been identified as a group that is difficult to reach with informational forestry materials. Since these landowners tend to manage their forests for different reasons which range from wood production to nature conservation, recreation and privacy, our proposal is that if landowners are presented with information in a form that suits their land ownership objectives, they are more likely to respond in a positive manner towards forest management. Also as landowner preferences for forest ownership vary, so can be the ways in which they desire to receive informational materials. Therefore to explore the current usage pattern of communication materials as well as to understand the preference for different communication methods by landowners based upon their forest management objectives, data collected from the 2010 mail survey of NIPF owners in Northeastern Michigan was analyzed.

**Study Area**

The study area included 29 counties located in the Northeastern region of Michigan (figure 1). These counties lie within 150 miles radius of a proposed cellulosic ethanol facility in Kinross, Michigan.

**Survey Methods**

A mail survey of 1,600 randomly selected landowners owning at least 20 acres of forest area was conducted using the Tailored Design Method. The overall response rate after taking into account the undeliverable addresses was 39%.

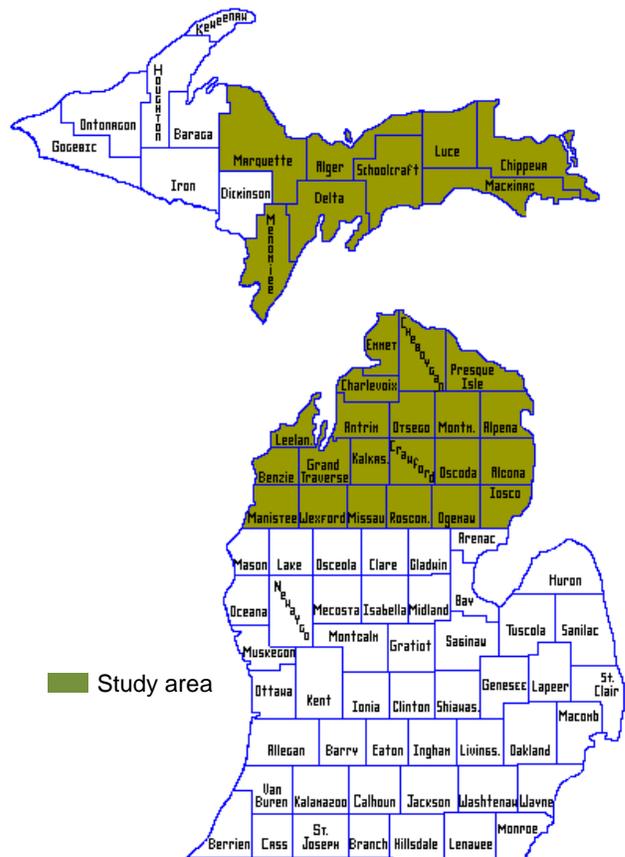


Fig1. Map of the study area



## **Statistical Analysis**

A market segmentation tool called “K-means cluster analysis” was used to identify different landowner segments based upon their forest ownership reasons. Eleven ownership reasons were provided in the questionnaire (table 1). Landowners were asked to rate the importance of each ownership reason using a five point Likert scale ranging from one-not important to five-very important. Parametric and non-parametric statistical tests were then conducted to identify differences among landowner segments in terms of the forestry outreach materials that they have used in the past and those that they would find useful in the future. Eleven forestry outreach methods were listed in the survey (figure 2). Of the methods provided, landowners were asked to indicate which they have used in the past and which they would find useful in the future. Landowners were also asked to indicate the reason for not using the outreach materials that they said they had not used.

## **Results and Discussion**

Cluster analysis revealed four distinct groups of landowners in Northeastern Michigan based upon their ownership objectives and the clusters were named according to these characteristics..

### ***Cluster 1. Consumptive use landowners (N=90)***

Landowners belonging to this group value hunting and fishing as the most important reason for owning their forestland. In addition, they show an interest in timber production, land value and bequeathing forestland to their heirs (table 1). Since consumptive use landowners value tangible benefits from their forests, outreach materials targeted at them should address how forestry can enhance these values.

Fifty-eight percent of the consumptive use landowners have not used any form of forestry information in the past. The main reason indicated for this was their lack of interest in forestry outreach materials (57%). Publications/books/newsletters were the most preferred means of communication for this group while radio programs were preferred the least (figure 2). These landowners find internet/web information significantly less useful to them than do landowners in all other clusters.

### ***Cluster 2. Recreationists (N=151)***

The important motivations for forestland ownership among the recreationist landowners are recreating in activities other than hunting or fishing, hunting and fishing, privacy, forestland as a part of their home, to protect nature and biological diversity, and to enjoy beauty or scenery (table 1). Since



recreationists place little value on the consumptive or monetary benefits derived from their forests, messages focused specifically on timber production may not interest them. Instead messages informing them of the positive effects of forest stewardship on the health of their forest, as well as on preserving visual and recreational values may attract their attention.

Approximately 45% of the recreationists have not used any form of proposed communication means in the past. Lack of interest was identified as the main reason for not using these methods (67%). Publications/books/newsletters, field tours, internet/web information, and newspaper/magazine articles were identified as the most useful forms of forestry outreach by these landowners (figure 2). Radio programs were again found to be the least useful of all methods.

### ***Cluster 3. Naturalists (N=70)***

Landowners in this group indicate that the values of enjoying beauty and scenery, protecting nature and biologic diversity, forest as a part of their home, and privacy are very important to them (table 1). Land investment is also somewhat important to this group. Hunting and fishing, however, is significantly less valuable to these landowners compared to all other clusters. Naturalist landowners report that they enjoy the existence and amenity values of their forests, but do not actively interact with it (hunt, fish, recreate) like other clusters. They also exhibit the least amount of interest in consumptive benefits from their forests compared to other groups. Messages that focus on maintaining forest health, aesthetics, sustainability, and ecology may be of interest to these landowners.

Almost half of this landowner cluster has not used any form of forestry information in the past. Lack of interest was indicated as the main reason for not using any outreach materials (61%). Similar to recreationists, naturalist landowners also prefer print media, field tours, and the Internet for receiving forestry information (figure 2). Additionally they prefer more hands-on learning such as conferences, seminars and workshops (figure 2). The least useful form of communication to this group was a membership to a landowner organization (figure 2).

### ***Cluster 4. Multiple objective landowners (N=193)***

These landowners' responses to forestland ownership importance questioning displayed a wide variety of values, with a majority of ratings being significantly higher than those for all other groups (table 1). Since they place value in receiving many benefits from their forests, many forestry outreach messages resonate with them, hence making it relatively easy to reach this group.



Approximately 70% of multiple objective landowners have used some form of the proposed communication methods in the past, making them the most active information users of all the clusters. Reasons for not using forestry outreach materials were found to be the lack of interest by landowners (48%) and lack of knowledge about where to get the information from (47%). This group has used and also prefers to use more of communication methods compared to all other clusters (figure 2).

Table 1. Median response for owning forest land by cluster

Ownership reasons	Cluster 1	Cluster 2	Cluster 3	Cluster 4
To enjoy beauty or scenery	Somewhat Important <sup>b</sup>	Very Important <sup>a</sup>	Very Important <sup>a</sup>	Very Important <sup>a</sup>
Protect nature	Neutral <sup>c</sup>	Very Important <sup>b</sup>	Very Important <sup>a</sup>	Very Important <sup>a</sup>
For land investment	Somewhat Important <sup>a</sup>	Neutral <sup>b</sup>	Somewhat Important <sup>a</sup>	Somewhat Important <sup>c</sup>
Home, vacation, farm, ranch	Neutral <sup>c</sup>	Very Important <sup>a</sup>	Very Important <sup>a</sup>	Very Important <sup>b</sup>
For privacy	Neutral <sup>c</sup>	Very Important <sup>a</sup>	Very Important <sup>a</sup>	Very Important <sup>b</sup>
Bequest	Somewhat Important <sup>a</sup>	Neutral <sup>b</sup>	Neutral <sup>ab</sup>	Very Important <sup>c</sup>
Non timber forest products	Somewhat Unimportant <sup>a</sup>	Not Important <sup>b</sup>	Somewhat Unimportant <sup>a</sup>	Neutral <sup>c</sup>
For firewood or biofuel	Neutral <sup>a</sup>	Neutral <sup>b</sup>	Neutral <sup>ab</sup>	Somewhat Important <sup>c</sup>
For production of timber	Somewhat Important <sup>a</sup>	Somewhat Unimportant <sup>b</sup>	Neutral <sup>c</sup>	Somewhat Important <sup>d</sup>
For hunting and fishing	Very Important <sup>b</sup>	Very Important <sup>a</sup>	Somewhat Unimportant <sup>c</sup>	Very Important <sup>a</sup>
Other recreation	Neutral <sup>b</sup>	Very Important <sup>a</sup>	Neutral <sup>b</sup>	Very Important <sup>a</sup>

Like superscripts denote no significant difference

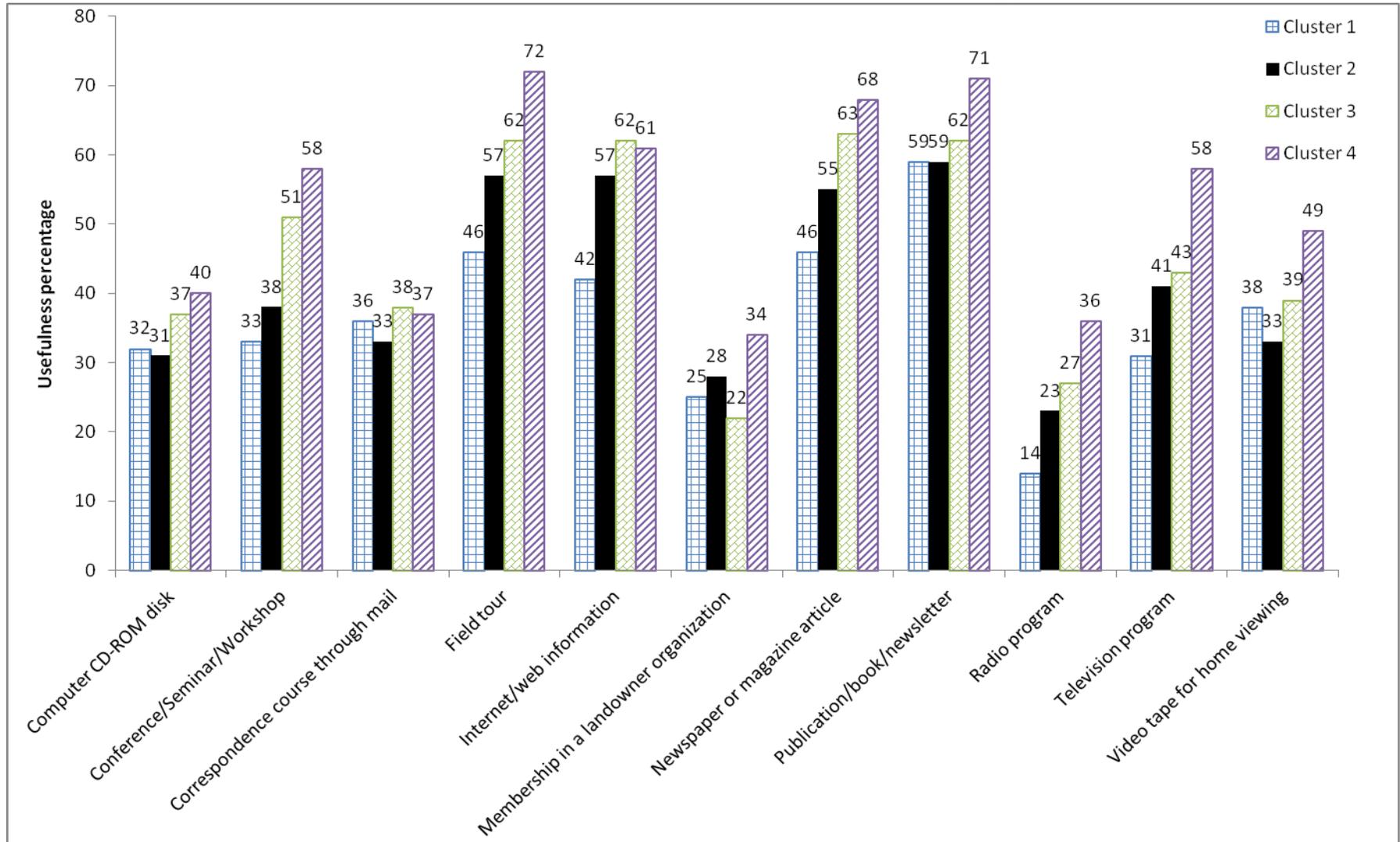


Figure 2. Percentage of NIPF owners in each cluster finding individual forestry communication methods useful to them.



### **Conclusion**

Based upon our results, NIPF owners in Michigan can be grouped according to their land ownership reasons. These groupings tend to differ in the number of communication methods they have used in the past and the way in which they would prefer to receive forestry information in the future. In general, however, a common pattern of communication usage and preference was observed among the respondents. Publications/books/newsletters, field tours, newspapers or magazine articles, and internet/web information were found to be the most commonly used and preferred by the respondents. Since this small set of communication methods were identified as useful to all, it is advisable to use these in a mixed audience. Accounting for the similarities and differences between the landowner groups that have been found, it is advisable when conducting forestry outreach to identify the audience and the ways they prefer to communicate. Outreach materials should then be tailored based upon the preferences of the target audience rather than following a blanket approach.