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**Abstract.--Development of tree improvement programs in the future will be influenced by national and international resource needs, current trends, and public values. Increased population pressures and public concerns for protecting the environment will be the major driving forces that set program direction. In general, tree improvement programs and research will be broadened to include new aspects of genetic resource management. The management and research programs will emphasize new technologies with public perceptions in mind. A talented, professional, diverse workforce, with a passion for solving problems, serving people, producing resources, and caring for the environment will be needed to meet the challenges of the future.**

#### INTRODUCTION

Thank you for the invitation to participate in the 22nd Southern Forest Tree Improvement Conference. I am pleased to be here to share a few thoughts, hopefully pertinent to you as managers, specialists and researchers in the South. It's good to be in Atlanta and to see some familiar faces in the audience. This brings back pleasant memories of my past work in this region.

I like the meeting theme of looking to the future. Hopefully, as we all strive to define a desired future, we can learn from each other and work together to achieve our goals. I will begin with a discussion of forces for change and current trends in natural resource management, followed by my vision for tree improvement.

No matter what position, organization, or perspective we come from, I think it is important to keep in mind the interrelationships or linkages in all that we do. That is important at all operational levels. A New York City Commissioner said it this way, "The environment is no longer an environmental issue." He went on to explain how environmental issues are completely intertwined with the whole fabric of society. In a similar way, I see tree improvement intertwined with the political, social, economic, ethics and science issues of today. These major issues are critical and central to our quality of life and the sustainability and health of the planet Earth. As tree improvement professionals, we have a key role in addressing the science problems and in serving a special set of societal needs.

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## USING DIFFERENT PERSPECTIVES

I am pleased to see that we are beginning this meeting with a look at the topic of tree improvement from different perspectives. I view examining topics from different perspectives as part of our continuing education responsibility. **Malcolm S. Forbes** said, "Education's purpose is to replace an empty mind with an open one." If we use that definition, then examining different perspectives should be a routine practice. **Oliver Wendell Holmes**, stated it a little differently: "The human mind, once stretched to a new idea, never goes back to its original dimensions." New perspectives, like new ideas, can be forces of change.

Joel Barker, in his book, Paradigms--The Business of Discovering the Future, describes three keys to successful participation in the twenty-first century. They are anticipation, innovation, and excellence. It is the anticipation and innovation keys that drives what I want to talk about today. It deals with assessing future customer needs and techniques for being responsive.

I expect that the four visions on tree improvement you hear this morning will be different, each with an appropriate rationale, and each with a different perspective. Perhaps our first task is to listen and try to understand each others' perspectives.

## WHERE HAVE ALL THE CHANGES BEEN

To set the stage I would like to reflect briefly on what has taken place in forestry in America over the past century. For convenience, I would like to break the past century into three phases: (1) exploitation (up to 1930); (2) protection (1930-60); and (3) management (1960 to present). In phase 1, forests were viewed as obstacles to agriculture; as a primary source of material for fences, bridges, railroads and charcoal; and often disposed of by burning. Around 1930 we moved to an era of protection, phase 2. In those 30 or so "protection" years, we reduced wildfire burns by a factor of 10. We initiated forest management practices and restored a lot of the cut-over and burned-over lands, especially in the East. Timber production was considered to be the primary purpose of forest lands. In phase 3, roughly the past 30 years, we accepted forest land as the producer of many goods and services. The forest became the provider of many resources--timber, water, wildlife, fisheries, recreation, minerals, etc. It appears that we are now moving into a new era, where forest values and land stewardship are central themes. What the forest "is" and the condition of the forest gets equal consideration with what the forest produces. While only time will reveal how this theme plays out, it appears to be the beginning of a paradigm shift. The boundaries of the concept are not completely defined and the measure of success is unclear.

Along with the changes concerning the purpose and value of forests, management and research on forest lands became much more diverse and complex. Think for a minute about our historical approach to natural resource management. In the first half of this century, forestry professionals were educated and expected to know what was best for the land, best for the mankind, and how to balance the two. Sometime during the 1960-70's, it became appropriate and popular for society to speak out on environmental issues. There were lots of milestones in this time period, e.g. the first Earth Day, the Multiple-Use Sustained-Yield Act, the Wilderness Act, the Land and Water Conservation Fund, the Historic Preservation Act, the National Environmental Policy Act, the Endangered Species Act, and the National Forest Management Act -- to name just a few. We addressed other issues dealing with fish, wildlife, clean water, wild horses and burros, insecticides, rodenticides, fungicides, resource planning, clean air, etc. That public involvement movement has grown to a point where forest managers now seriously consider what land management practices the public will and won't accept. That public (individuals, interest groups, Congressional representatives, etc.) are not bashful about expressing opinions that go beyond State and National Forest boundaries.

**Within our profession we have welcomed and promoted public involvement and participatory management. We have placed greater emphasis on human values, as well as land and resource protection and restoration. Listen to the titles of three books reviewed in the January 1993 Journal of Forestry. They are "Balancing Act: Environmental Issues in Forestry," "Global Imperative: Harmonizing Culture and Nature," "On Common Ground: Managing Human-Planet Relationships." Our profession was not involved in reading and reviewing those kinds of books 10 or 15 years ago. These three examples demonstrate the kinds of changes that are occurring.**

Have there been changes in society? Of course. In fact, they have been the primary driving forces for the changes in natural resource management. We have more people. They are more concentrated in cities and they have a higher standard of living. We have developed into a luxury-laden American society that increasingly places higher and higher values on natural resource protection and restoration. That luxury and those values prompts conflicts and challenges. As a rule it's utilization versus preservation debates.

It is clear that our society and our approach to natural resource management has changed a lot during the last century and particularly over the last 30 years. We could debate whether the glass is half empty or half full, but I think that we have adjusted to the major changes fairly well. I suggest that one measure of successful adjustment is the fact that there has been a continued need by the customers for our services.

#### THE LARGER PERSPECTIVE

**I expect that some of you would argue that we and society have gone too far in public involvement, that the professional can no longer do his/her job, that**

work efficiency is greatly reduced, and that the protectionism movement is wildly out of control. Some others would likely argue that we have been far too slow in adjusting to change and that we are not listening to what the public wants us to do. Where do we draw the line for public involvement and participatory management involving decisions about how our natural resources are used, restored and protected?

Lets digress and take a world perspective peek on what is happening to the environment. I refer you to Our Common Future. A United Nations Commission on Environment and Development report on the status of the world. The Report is often quoted with regards to the topic of sustainable development--meeting the needs of the present without compromising the ability of future generations to meet their own need. Here is a statement from this 1983 report: "Our Common Future serves notice that the time has come for a marriage of economy and ecology, so that governments and their people can take responsibility not just for environmental damage, but for the politics that cause the damage. Some of these policies threaten the survival of the human race. They can be changed. But we must act now." This report is a serious request for us to look at environmental and development problems beyond local, state and national borders.

I refer you also to State of the World 1993, published by Worldwatch Institute, another international group concerned about getting a sense of the condition of the world's environment. Here are a couple summary statements for perspective: "Today environmental degradation is directly affecting national and global economic trends." "Soil erosion, thinning of the ozone shield, air pollution, and increased flooding caused by deforestation are all taking their toll. Rangelands and oceans are being pushed to their limits, and their productivity is beginning to fall." Here is another call to understand our problems within the international framework, the larger perspective.

How do Americans feel about the environmental issues? The Times-Mirror Magazine National Environmental Forum Survey, completed in March, 1992, reports that 30 percent of Americans think of themselves as "active environmentalists" and another 52 percent say they are "sympathetic" to environmental concerns. Nearly two-thirds think environmental laws and regulations have not gone far enough. When faced with a choice, two-thirds come down on the side of the environment rather than economic growth. Perhaps most surprising, Americans are split evenly on the assertion by the World Watch Institute that the 1990's is the last decade when humanity will have a chance to save the Earth from environmental catastrophe. Whether it is true or not that we are on the brink of environmental disaster, it is important that we as natural resource managers and researchers understand how the public perceives the issues.

Do ideas and statements that I have just presented have anything to do with tree improvement in the United States? I would say "yes." In a very real sense the issues that effect Americans shape our ideologies, our programs and