Return to the Forest

Where We Live

Photograph Courtesy of Jill W. Lang

Return to the Forest Where We Live

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Introduction

In 1998 Louisiana Public Broadcasting produced an hour-long documentary entitled *"The Forest Where We Live."* This program received the National Arbor Day Foundation Award for Media, as well as other honors, and was hailed by the national urban forest community as a significant piece of work.

Since *"The Forest Where We Live"* was originally produced and distributed nationally, major natural disasters such as Hurricanes Katrina and Rita in 2005, the devastating wildfires which affected thousands of acres of land in California and the recent flooding in mid-America have occurred, research findings have expanded, technology has advanced and new model programs have emerged. All of these demand national attention; therefore, Louisiana Public Broadcasting's goal for this project is to increase the general public's knowledge and appreciation for the benefits derived from our urban and community forests through an updated documentary, *Return to the Forest Where We Live,* which focused on their protection and development.

Most people will express a sincere appreciation for the trees in their cities; in principle, after all, tree-lined streets, generous green spaces, and abundant parklands are the preferred choice. When it comes to the bottom line, however, few of us could arrive at any kind of meaningful estimate of the real *value* of our urban forests. So among city planners and citizens alike, the absence of hard figures inevitably results in an absence of trees. As pavement replaces shade, cities grow and business expands. Yet, paradoxically, community resources shrink and quality of life withers.

That may be changing, though. This program looks at how advances in technology—and changes in priorities—are prompting communities throughout America to reconsider how vital trees really are to the socio-economic wellbeing of our cities. And many are surprised to find that a small investment in trees can reap big dividends.

Beginning with the hurricane-ravaged Gulf Coast, *Return to the Forest Where We Live* examines how some American cities have begun to calculate the real economic costs that follow the loss of our urban forests. As cities expand and pressure on public services increases, many are discovering that "green infrastructure" provides a highly efficient and cost-effective alternative to traditional urban development. Drawing upon examples from New Orleans and the Gulf Coast, Los Angeles, Washington, D.C., Baltimore, and Charlotte, this program challenges viewers to re-evaluate the critical importance of investing in healthy urban ecosystems.

Focus of the Documentary

To achieve the goal of the documentary, i.e. to increase the general public's knowledge and appreciation for the benefits derived from our urban and community forests, the documentary focuses on four critical urban forestry issues:

1. The impact that natural disasters have on the urban forests
2. How human communities are being impacted by the rapidly changing environmental conditions along urban-rural interfaces and how these changing conditions are creating new ecological and societal challenges and opportunities
3. How the presence of trees and nature in cities provides human benefits and services
4. How technology has expanded our knowledge of urban forests benefits and best practices

Audience

The target audience for this project is not only potentially millions of public television viewers across our nation but also hundreds of local, regional and state urban planners and government officials nationwide whose charge it is to make sure our cities remain habitable and thousands of teachers whose charge it is to make tomorrow's leaders aware of the critical role urban forest play in enhancing the quality of our lives. The hundreds of non-profit organizations across the country who are successfully involving the adults and young people in their communities in meaningful environmental education efforts should also benefit from this project.

Activites

Suggestions For Using The Activities

The activities described below are designed to augment the video and to provide additional opportunities that can lead to a more in-depth exploration and understanding of the issues discussed in the video. How, when and if to use any of the suggested strategies will be determined by the setting in which the video is being utilized, the demographics of the audience and the goal of the facilitator. Note that there are several questions and statements that are repeated in multiple activities, assuming that not all activities will be used with the same group.

Participant hand-outs, suitable for duplication, can be found in the accompanying Appendix.

Focus Time (A)

An effective strategy that is often times employed when using a video is to offer the audience an opportunity to focus on one or more of the ideas presented *prior* to the video being shown. One example is to have the audience respond individually to a series of questions or prompts that can assess their own background knowledge and/or recall past experiences that are related to the topic under discussion. Just a few minutes is needed for viewers to jot down their thoughts and answers. Then, as the video is shown, participants can look for the "answers" to the questions. At the completion of the video, time is provided to facilitate a discussion by the participants in order to discuss their answers in light of what they may have learned.

A one-page sheet entitled *Focus Time (A)* is provided for this purpose (see Appendix). After viewing the video, the facilitator may decide to add other questions and or remove some that are on the sheet provided.

Focus Time (B)

Another successful strategy that is used to engage an audience prior to viewing a video is "brainstorming." First, a single question is posed by the facilitator to the audience. As the participants give their comments, the facilitator then writes them on a flip chart or some other means of display for future reference. The question should elicit from the participants their thoughts and ideas; all answers are accepted; none are discarded or eliminated; no judgment should be made by either the facilitator or other participants. After a short round of brainstorming, the video is played. Participants should be instructed to think about all of the comments as the video is shown and to frequently refer back to the comments listed on the flip chart. At the conclusion of the video, the participants should review their original brainstorming statements and, coupled with their newly found knowledge, see if they can come to consensus as to an answer to the question posed. There is no hand out for this activity but three questions suitable for this activity are listed below.

- **What is the value of a tree?**

- **What comprises the urban forest?**

- **What makes up an urban ecosystem?**

**Quotes
to
Quote**

In this activity, participants will be asked to read a quote/statement and to respond to its meaning. The quotes are from a variety of sources and relate to the concepts discussed in the video. While there is no "right" or "wrong" answer, this activity should allow participants to speak freely, draw on past experiences and ideas and to perhaps see something in a new perspective. Seventeen quotes are provided (see Appendix). The facilitator can select those most appropriate for the audience.

It is suggested that following a viewing of the video, the entire audience be divided into smaller sub-groups and then each sub-group be given a different quote to consider. Preferably, if time allows, individuals will be able to ponder the quote for a few minutes by themselves before discussing with their sub-group members. After all the sub-groups have discussed their individual quote, then have each sub-group report out to the entire group on their findings. Allow time for interaction.

An alternative strategy would be to assign every participant the same quote and have one discussion on the selected statement.

Questions to Question

**Questions
to
Question**

This activity is comprised of a list of questions and/or statements that can be used in a variety of ways with the video. Since they are listed by the segment of the video to which they are related, they could be used as a "prompt" before starting that particular section or as a "closer" when that section is completed. The facilitator would simply just start or stop the video, when appropriate.

It is not intended that all of the statements from a particular section be used at one viewing; rather, they should be looked upon as a menu of possible points of discussion, depending upon the audience. Again, depending upon the audience these questions could be used in a different venue such as an assignment for further research, etc.

Time codes are provided for ease of use.

Resources

A short list of additional resources is provided and can be found in the Appendix. These include links to the websites of agencies and terms referenced in the documentary. It is by no means inclusive and should be used only as a starting point. It is also suggested that the viewer go to the following link http://www.lpb.org/forest for additional information. This site provides a wealth of information that has been updated from the original documentary, *The Forest Where We Live*.

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Where We Live

Appendix

Focus Time (A)

Please take a few minutes to jot down your answers and thoughts to the series of statements listed below; then as you watch the video, listen for the answers.

1. Identify a particular tree that you are familiar with (from your yard, work area, place where you used to live or visit, etc.) and list the worth or value of that tree to you.

2. What is an *urban forest*?

3. Do you think that it possible to put a dollar value to the benefit of an urban forest? Elaborate.

4. How might technology play a role in the way the urban forests are studied?

5. Is the population in the community or city where you work *growing* or *declining*?

6. What are some of the *positive* aspects of urban growth to a community?

7. What are some of the *negative* aspects of urban growth to a community?

8. What might be a possible connection between trees, urban runoff and water quality?

9. Explain the term *carbon sequestration*.

10. What might be the single most important thing that an individual can do to help protect the environment?

Quotes to Quote

"A city without trees is like a world without poetry and music. Tree-lined streets are more than shaded passage-ways linking buildings. They give us a chance to bring nature into the heart of our communities, while linking us to our past."

-Henry Arnold

"The world contains enough to satisfy every man's need, but never enough for our greed."

-Mahatma Gandhi

"I know of no safe depository of the ultimate power of society but the people themselves, and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education."

-Thomas Jefferson

"Green infrastructure offers a smart solution to our land conservation challenges because it seeks to plan land development and land conservation together in a way that is consistent with natural environmental patterns."

-Mark Benedict and Edward T. McMahon

"Too many community leaders feel they must choose between economic growth and open space protection. But no such choice is necessary. Open space protection is good for a community's health, stability, beauty, and quality of life. It is also good for the bottom line."

-Will Rogers in the Economic Benefits of Parks by S. Lerner and W. Poole

"Change is inevitable, but it does not have to come at the expense of what citizens and communities value. We can either be victims of change or we can plan for it, shape it, and emerge stronger from it. The choice is ours."

-Jim Howe, Ed McMahon, and Luther Propst

"The best friend of earth of man is the tree. When we use the tree respectfully and economically, we have one of the greatest resources on the earth. "

-Frank Lloyd Wright

"We all react, consciously and unconsciously, to the places where we live and work, in ways we scarcely notice or that are only now becoming known to us….Our ordinary surrounds, built and natural alike, have an immediate and a continuing effect on the way we feel and act, and on our health and intelligence."

-Tony Hiss

"Acts of creation are ordinarily reserved for gods and poets. To plant a pine, one need only own a shovel."

-Aldo Leopold

"People who will not sustain trees will soon live in a world that will not sustain people."

-Bryce Nelson

"We've had enough. Human consumption is endless. We've got to rethink how much can we take? How much can we consume? How much do we need? And then we're going to have to find a way out because if we continue this way, we will take every fish in the sea, every animal on the planet, and every tree will be gone. And we're going to ask ourselves when the lightning bolt arrives, what have we done?"

-Michael Gallis

"So, we have many products in our lives that are derived from natural systems. Our food, building supplies, lumber, those sorts of things and what I see in our society is that many people are disengaged from these products. They don't really recognize where they come from and they don't really support the sustainability of these products so our farmlands around many cities are being gobbled up by new development."

-Dr. Kathleen Wolf

"It's one thing not to see the forest for the trees, but then to go on to deny the reality of the forest is a more serious matter."

-Paul Weiss

"Someone's sitting in the shade today because someone planted a tree a long time ago."

-Warren Buffett

"There was a handsome male mockingbird that sang his heart out every morning during the nesting season from the top of a tall Norfolk Pine tree. Last week the tree was cut down. The mockingbird and his song are gone. I can't put a dollar value on the tree nor on the mockingbird nor on his song.   But I know that I - and our whole neighborhood - have suffered a loss. I wouldn't know how to count it in dollars."

-Jacquelyn Hiller

"We must protect the forests for our children, grandchildren and children yet to be born. We must protect the forests for those who can't speak for themselves such as the birds, animals, fish and trees."

-Chief Edward Moody, Qwatsinas, Nuxalk Nation

"We cannot solve the problems that we have created with the same thinking that created them."

-Albert Einstein

Questions to Question

Sequence 1 (01;01;41 – 01;06;09)
1. What is the function of a tree?
2. If convenient, point out a specific tree nearby and discuss the value of that tree, or ask the audience to individually think of a favorite tree and tell why it is a favorite.
3. Today, the definition of *urban forests* includes much more than just the trees that are found within a community. What would you think would be included in this more current definition? (Trees, the land, the soils, water systems, wildlife and how they all connect?)

Sequence 2 (01;06;09 – 01;10;36)
1. In general terms, list some of the more positive aspects of a rapidly growing urban area.
2. In general terms, list some of the more negative aspects of a rapidly growing urban area.
3. Specifically, how is the urban forest impacted in an area of (a) rapid growth (b) declining growth?
4. Using the area where you live or work, (a) site specific\personal examples where trees have been impacted from rapid growth, if applicable. (b) Has anything been done to address this issue? If so what? If not, why not?
5. If the audience is primarily from one particular city or community, provide data or access to data that can demonstrate the growth rate of the community within a similar time frame to that of the Charlotte metro region listed below. Discuss the implications of this data.

   "Between 1980 and 2000, the Charlotte area's population grew by 72%. By 2010, the 15-county Charlotte region will be home to 2.5 million people."

Sequences 2A & 2B (01;10;36 – 01;17;08)
1. What is meant by an *impervious* surface? (see fact sheet from University of Wisconsin at the following website): http://www.uwsp.edu/CNR/landcenter/pdffiles/EnvironmentalIndicatorFactSheet.pdf
2. "The impervious surfaces dominate the flow of water in urban areas." Explain what this statement means.
3. (a) Can you identify areas in your own community that have changed from "pervious" to "impervious" in the last 10 years? Last year?
   - (b) How can this situation be addressed?
   - (c) How are they addressing this in Charlotte?
   - (d) Do you think that their solution would work everywhere? What would have to be in place for this to happen?
   - (e) Does your community have any plan for addressing this concern?
4. According to EPA standards in the Clean Water Act, 73% of Charlotte/Mecklenburg's major stream miles are impaired. What is the status of the streams and waterways around your community?
5. Find out where the runoff from your community goes. (a) Can you put a monetary figure on the costs of moving the water out of your city, if applicable? (b) Does your community spend money to import water from out of your city to service the needs of its residents?
6. Why do you think in some instances that it is hard to get some city planners to view urban forest/tree management as a basic part of the city's infrastructure?
7. Read more about the Charlotte N.C. experience at http://www.americanforests.org/productsandpubs/magazine/archives/2005fall/feature2_1.php

Sequence 3 – 3B (01;17;08 – 01;22;22)
1. In 1912, Japan made a gift to the United States of 3000 cherry trees which were planted in the nation's capitol. While the care of these trees has remained a high priority (http://www.nationalcherryblossomfestival.org/cms/index.php?id=574), the upkeep of the remaining trees fell from the city's list of budgetary priorities. Why do you think that this has remained such a high priority?
2. How has technology validated the worth of urban trees?

Sequences 4A - 4D (01;23;41 – 01;35;18)

1. Scientist now speak of the *"urban ecosystem"* rather than thinking of the city and the surrounding forest as two distinct entities. What encompasses an urban ecosystem?
2. Describe what is meant by the *heat island effect.* How can trees mitigate this phenomenon? http://km.fao.org/urbanforestry/repository/urb_compendium/ detail.html?tx_ttnews%5Bpointer%5D=7&tx_ttnews%5Btt_news%5D=2105&tx_ttnews%5BbackPid%5D=1451&cHash=9038954e0f
3. What is the air quality index for the region in which you live? Contact your nearest meteorologist or state's air quality regulator to find out more about the air quality where you live. The following EPA site is a good starting point. http://www.airnow.gov/
4. Discuss what makes the urban forest so valuable, both in terms of the air and water quality of a community.
5. What is meant by *carbon sequestration*? How do trees play a part in this process? (http://www.epa.gov/sequestration/faq.html)
6. Discuss some of the benefits that people gain from experiencing nature in our cities, particularly trees. Cite specific examples that you have experienced.
7. One researcher looks at maps of morbid obesity, diabetes and asthma and pointed out that these conditions were more prevalent in areas that lack tree canopy. Why would you think this would be so?

Sequence 5 (01;36;29 – 01;38;39)

1. Richard Roti, head of the Charlotte N.C. Tree Advisory Commission states that a "vital message that needs to get across to towns all over American is that as you plan your growth you need to make sure that you're integrating your assets in a sustainable way." What do you think he means by this statement?
2. Look at the two statements below and discuss them in terms of the role of the urban forest ecosystem:

   a. Urban forest researchers are concerned that we may be reaching the point where by removing so many of the trees and replacing them with pavement, we are reaching a threshold where "we are close to violating the ecological functioning of that land and getting it back may be impossible."

   b. The global population is projected to grow by 50% over the next 40 years; the global economy, however, is projected to grow by 400% to 700%.

Sequence 5A – 5G (01;38;39 – 01;55;07)

1. Why do you think that many residents along the Gulf coast, whose homes were impacted by Hurricane Katrina, were so willing to help plant and replace trees in their area even before they had homes of their own to live in once again?
2. What is the National Urban Tree Deficit? How is it determined? http://www.americanforests.org/graytogreen/treedeficit/
3. Some cities, such as Charlotte, N.C. have implemented a model approach to directing new development in a way that protects the natural functioning of the environment. How has this been accomplished? In your opinion, is it successful?
4. Urban planners say that *natural capital* is the idea that natural resources are worth more saved and protected than they are b eing used. Explain what this means. It is a practical approach?
5. Although the urban ecosystem is complicated, preserving it is not. Do you agree with this statement? Explain.
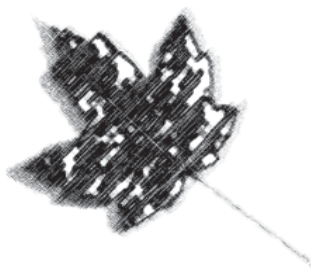
Additional Resources

Below is a list of resources that can help you get started in your effort to find more information on specific urban forestry issues and ideas to help you become more actively involved in your community. Each one of the organizations listed has a proven, successful record in addressing their particular mission and *they are making a difference!*   Note: This is not intended to be an all inclusive list.

Foundations and Programs

American Forests: An extensive website that provides a broad range of resources related to trees. The home page provides easily recognizable links to a *personal climate change calculator*, an *air pollution calculator*, information on *CITYgreen*, *the National Register of Big Trees, activities for children*, and even the opportunity to send *e-mail post cards.* This non-profit "is a world leader in planting trees for environmental restoration, a pioneer in the science and practice of urban forestry, and a primary communicator of the benefits of trees and forests. It is the nation's oldest nonprofit citizens' conservation organization. Citizens concerned about the waste and abuse of the nation's forests founded American Forests in 1875." http://www.americanforests.org

Casey Trees Foundation: The mission of Casey Trees is to restore, enhance, and protect the tree canopy of the Nation's Capital. Some of their successful programs include, citizen forester training, community tree planting, student internships, planning and design research and tree inventory analysis. http://www.caseytrees.org

Parks and People Foundation of Baltimore: This successful non-profit "strives to improve the quality of life for all people in the Baltimore area through educational and recreational programs that motivate young people and through partnerships that create and sustain green spaces within our city." http://www.parksandpeople.org/home.html

Project Learning Tree: "Project Learning Tree (PLT) is an award-winning environmental education program designed for teachers and other educators, parents and community leaders working with youth from preschool through grade 12."   It was developed by the American Forest Foundation and is continually evolving to meet the changing needs of today's youth. One of their most recent modules, *Exploring Environmental Issues: Places We Live*, is designed for the secondary school level; however, the activities that are presented in this resource could easily be used with adult audiences. The purpose of the module is to "provide opportunities for community investigations that focus on environmental, social, and economic issues and to help students and other community members develop and strengthen their sense of place." The PLT Coordinator in your state can provide additional information on this and other modules. You can get the name of your state's coordinator by going to the website below. Click on JOIN PLT and then click on CONTACT YOUR STATE PLT COORDINATOR. Find your state on the map, which will then lead you to the appropriate contact information. http://www.plt.org

TreePeople: TreePeople is a nonprofit organization that has been serving the Los Angeles area for over three decades. Their work is to "help nature heal our cities," and focuses on three areas: (1) training and supporting communities to plant and care for trees, (2) educating school children and adults about the environment and (3) working with government agencies on critical water issues. http://www.treepeople.org

The Forest Where We Live: LPB's award-winning documentary which was produced in 1998. The website offers much information and resources on urban forestry. http://www.lpb.org/programs/forest/

Teacher Resource Guide-The Forest Where We Live: A Six Part Series
This guide was developed by LPB to accompany a six part series, developed from the original one hour documentary as a spin-off series for teachers. The guide has specific activities for classroom use, primarily for middle school-high school aged children. www.http//www.lpb.org/programs/forestseries

U.S. Census Bureau: This government website provides access to data including population statistics by state, town and county, along with area profiles and other relevant facts. The U.S. population clock and World population clock site are also available. http://www.census.gov

Software Programs

i-Tree: i-Tree is a state-of-the-art software suite from the USDA Forest Service that provides urban and community forestry analysis and benefits assessment tools. http://www.itreetools.org/

STRATUM: This street tree management and analysis tool is part of the i-Tree program and was developed by researchers at the Center for Urban Forest Research. Using this program, communities can easily conduct and analyze a street tree inventory. http://www.itreetools.org/street_trees/introduction_step1.shtm

UFORE: – Urban Forest Effects Model is a computer model developed by the U.S. Department of Agriculture (USDA) to calculate the structure, environmental effect and values of urban forests. The site provides an extensive amount of background information in addition to links to the results of studies involving nine cities including Atlanta, Baltimore, Boston, Calgary, Jersey City, New York City, Philadelphia, Syracuse and Toronto. http://www.ufore.org/

CITYgreen: CITYgreen software conducts complex analyses of ecosystem services and creates easy-to-understand reports. The software calculates dollar benefits for the services provided by the trees and other green space in your specific area. http://www.americanforests.org/productsandpubs/citygreen/

Terms Used in the Video

Carbon Sequestration: Carbon sequestration refers to the process of removing carbon dioxide (CO_2) from the atmosphere. Trees, plants and crops do this naturally through the process of photosynthesis and store the carbon dioxide as carbon in biomass (tree trunks, branches, foliage and roots) and soils. Below are two sites that provide information on carbon sequestration.
- http://cdiac2.esd.ornl.gov/
- http://www.epa.gov/sequestration/faq.html

Heat Island Effect: This term refers to the phenomenon whereby surface temperatures and the urban air are higher than nearby rural areas. Many U.S. cities and suburbs have air temperatures up to 10°F warmer than the surrounding natural land cover. This EPA site provides basic information on measuring heat islands, links to pilot projects in 5 major U.S. cities (Baton Rouge, Salt Lake City, Sacramento, Houston and Chicago), current research, impacts and some suggestions on ways to help mitigate the problem.
- http://www.epa.gov/hiri/index.html
- http://km.fao.org/urbanforestry/repository/urb_compendium/
detail.html?tx_ttnews%5Bpointer%5D=7&tx_ttnews%5Btt_news%5D=2105&tx_ttnews%5BbackPid%5D=1451&cHash=9038954e0f

Urban Ecosystem Analysis: Learn how this process (UEA) is used to map the structure of a land area by utilizing satellite data, the software CITYgreen, and the application of science and engineering principals. Summaries of American Forests' Urban Ecosystem Analyses of over 20 major cities in the U.S. can also be found at this site. http://www.americanforests.org/resources/rea/

Impervious Surfaces: This term refers to the ability (or lack thereof) of a surface to allow water to move through it. This is important in the control of water runoff. The following links can get you started on finding out more about this topic.
- http://www.hillsdalecounty.info/planningeduc0004.asp
- http://www.uwsp.edu/CNR/landcenter/pdffiles/EnvironmentalIndicatorFactSheet.pdf

National Urban Tree Deficit: "The National Urban Tree Deficit is the number of 'average urban trees' we need in metropolitan areas to bring the tree canopy level up to American Forests' conservative recommendations." (American Forests) Learn more about how the numbers are derived and how you can help.
- http://www.americanforests.org/graytogreen/treedeficit/

LPB

LOUISIANA PUBLIC BROADCASTING

7733 Perkins Road
Baton Rouge, LA 70810
(225) 767-5660
www.lpb.org/forest