

Film Reviews

Rivers of Destiny (1999) & Plan B: Mobilizing to Save Civilization (2009)

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Rivers of Destiny (1999) and *Plan B: Mobilizing to Save Civilization (2009)* are two films in a series of 12 PBS videos, entitled *Journey to Planet Earth*, which explain and illustrate the complex environmental relationships between human activity and the planet Earth. The PBS series was described by the New York Times as "...examin[ing] what is happening to wildlife in places like Africa, South America, the Arctic and the Everglades," and the School Library Journal urges teachers to order the videos for the media centers because they "superbly illustrate the desperate need for a balance between the needs of people and the environment."

Using an interdisciplinary approach, the producers of the series draw direct and relevant consequences between competing cultural priorities advanced by politics, economics, and science and their impact on the quality of life. Each of the persuasive videos contains four or more thematically related issues that form a mosaic of environmental attitudes, behaviors, and consequences. The emphasis is on promoting sustainability, and the essential question is how long planet Earth can satisfy rising expectations and conspicuous consumption for its estimated population of 6.9 billion humans. These demographics have to be compared and contrasted to the world's estimated population of 1.6 billion in 1900. Today China's population is 1.4 billion, and India has 1.2 billion citizens. What will be the environmental consequences if 2 billion Chinese and Indians achieve a comparable life style to that enjoyed by most citizens in post-industrial nations? What cultural values determine attitudes toward the environment and are humans expected to transform it, live with it, or accept natural forces?

Rivers of Destiny (1999)



The video *Rivers of Destiny* provides educators with the option of playing the full version (57 minutes) or an abridged version (25 minutes) which provides time for students to participate in reflective activities supplemented by the enclosed teaching guides. The PBS series correlates with five National Science Education Content Standards: Abilities to Do Scientific Inquiry (Standard A); Life Science (Standard C); Earth and Space Science (Standard D); Science and Technology (Standard E); and Science in Personal and Social Perspectives (Standard F).

The seven chapters in *Rivers of Destiny* (1999) are the introduction, the upper Mississippi, the Amazon, the Jordan, the Mekong, the lower Mississippi, and the conclusion. Each 11-minute chapter is a case study about the positive and negative impacts of human development, including water rights, flood control, overfishing, and deforestation. Rivers appear to be robust and formidable ecosystems but are in reality fragile and subject to co-dependent variables. The second chapter about the upper Mississippi river examines the impact of seasonal floods on upstream communities such as Grafton, IL. The floods were reduced by building thousands of miles of levees and dams. One consequence of flood control is the reduction in the flow of nutrient-rich sediments downstream, which diminished the ecosystem of wetlands and reduced the natural reproduction of fish and



shellfish in the Gulf of Mexico. Questions are raised in this chapter about what caused the 1993 flood in Grafton if the amount of rainfall has not changed in the last 90 years? The answers involve the unintended consequences of economic development: the increased runoff from paving, parking lots, highways, and deforestation.



Chapter 3 begins with an overview of the Amazon, the world's largest river in the globe's largest rainforest. The Amazon represents 1/6th of the world's fresh water, and its total discharge is greater than the next 10 largest rivers combined. The Amazon begins with melting snows in the Andes and continues to grow from heavy tropical downpours during the six-month rainy season, which causes it to flood over the

lower regional plains. During these seasonal floods an underwater forest, at some points 30 feet deep, is created for 3,000 species of fish and other aquatic and surface life that reproduces and lives in the flood plain. The dangers to the Amazon are the result of the deforestation, erosion, soil loss, and sedimentation which regulates the amount and quality of water from the 1,100 tributaries and 19 major rivers that flow into it. The quality of the water affects the aquatic life upon which the interior populations depend.

A rocky plateau is the setting for Chapter 4 and a description of the contentious political, economic, and military issues of the Jordan River which begins with the melting of snow on Mt. Hermon (9,000 feet) in Israel. The river and three tributaries flow into the Sea of Galilee below the Golan Heights. Eventually, some 156 miles later, the Jordan empties into the endorheic (closed drainage) Dead Sea some 1,300 feet below sea level. Water is critical to all forms of agriculture in the arid and desert regions of Israel, Jordan, and Syria. The amounts of water flowing down the Jordan have decreased drastically from 1.3 billion cubic meters in 1955 to 100 million cubic meters in 2009. The Royal Kingdom of Jordan gets 75% of its water from the river which remains mainly under the control of the Israelis. The river water has become so polluted that religious baptisms in some areas have been banned because of the high levels of sewerage, biocides, and pesticides in the muddy brown water. Estimates are the Jordan River will no longer be an active river after 2011 when 50% of the biodiversity will be gone. What will happen to the estimated 500 million birds that depend on the river for their biannual migrations?



The fifth chapter shows the tumultuous story of the 3,000-mile-long Mekong River and its delta which runs from the Tibetan Plateau through China's Yunnan province, Burma, Laos, Thailand, Cambodia, and Vietnam into the South China Sea. The Mekong is an unusually diverse river when one considers its



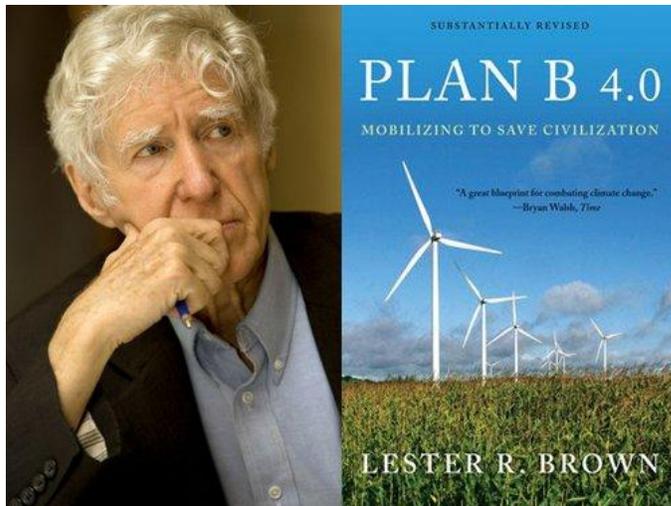
hydrological regimes, physiographic land use, and existing and potential resource developments which are divided into six distinct reaches. The first of five reaches begins in the Tibetan Plateau and the next four in mountainous jungle areas until it flows beyond Cambodia's capital Phnom Penh that marks the beginning of the Mekong River delta system. The Mekong basin is one of the richest areas of biodiversity

in the world exceeded only by the Amazon. The Mekong contains an estimated 20,000 different plants, 850 fish species, 1,200 diverse birds, 430 mammals, and 800 reptiles and amphibians. Unfortunately all of this rich natural diversity is being threatened by flood control, levees, dams, overfishing, and pollution. The governments of Cambodia, Laos, Thailand, and Viet Nam formed the Mekong River Commission in 1995 to ensure management of the delta region which serves some 60 million people. The video shows the importance of the delta in terms of industrial and agricultural development, subsistence fishing, and transportation.

Plan B: Mobilizing to Save Civilization (2009)

The 83-minute video *Plan B: Mobilizing to Save Civilization*, coordinated by environmentalist Lester R. Brown, is divided into 16 segments: Introduction; Distress Signals from 35,000 Feet; Who Will Feed China; A Road Trip; Ancient Civilizations; Meat Milk and Eggs; Failing States; The Economic Truth; The 29th Day; Plan B; Poverty, Population, and the Diversity of Life; Reducing CO2 Emissions; The New Energy Economy; Can We Change Fast Enough; Saving Civilization is Not a Spectator Sport; and Final Thoughts.

These segments address National Science Standards for Grades 5-12 including: Personal and Social Perspectives (NSS.9-12.6); The 20th Century Since 1945: Promises and Paradoxes (NSS.WH.5-12.9); Human Systems (NSS-G.K.-12.4); Environment and Society (NSS-G.K.-12.5); and The Uses of Geography (NSS-G.K.-12.6).



The video contains Brown's current warnings, presentations, interviews, and lectures about the injurious effects of human development on the environment. Plan A, which Brown refers to as "business as usual," has to be replaced with Plan B to save civilization. Brown holds degrees in Agricultural Science, Agricultural Economics, and Public Administration from Rutgers University, the University of Maryland, and

Harvard University. He is the author or co-author of 50 books on environmental issues, and in 1974 he founded the Worldwatch Institute (<http://www.worldwatch.org/>). Brown was one of the first advocates of the concept of sustainable development.

The video is partially narrated by actor Matt Damon and contains commentary by some of the world's leading authorities (Paul Krugman, Thomas Friedman, and Bruce Babbitt) in social transformation, economic development, renewable energy, and sustainable economies. Brown and these experts warn that enormous changes must occur before 2020, including reducing carbon emissions by 80% or the Arctic ice caps and the Himalayan glaciers will melt. Brown on a recent trip to China flew over the Arctic region where he calculated ice caps the size of the United Kingdom had melted in one week. At the current rate the glacial melting will result in water shortages in the Ganges delta of India, an area that supports 430 million people. Hundreds of millions of Chinese will be negatively affected as the glaciers provide a water source that flows into the Yangtze and Yellow Rivers. The video concludes with reflective comments and a warning about the challenges facing the global population. Brown asks each viewer to become involved in some way big or small to advocate on behalf of saving the planet from global warming. Rapid climate change will produce more failed states until we have a failed human civilization as we know it.

Conclusion

Rivers of Destiny and *Plan B: Mobilizing to Save Civilization* provide a glimpse into the potential of emerging economies based on renewable energy versus the business-as-usual model that has contributed to global warming and possible climate change. Traditional sources of energy that pollute, fossil fuels and nuclear, must be replaced with wind, solar, and geothermal sources to save planet earth. The two videos are professional documentaries prepared for PBS.

Each video is available from Screenscope (www.screenscope.com) for the cost of \$149- plus \$10 for shipping and handling.

Resources

Rivers of Destiny (1999) – Teacher’s Guide.

http://www.screenscope.com/education/teachers_guide1.html

Plan B: Mobilizing to Save Civilization (2009) – Teacher’s Guide.

http://www.screenscope.com/images/Plan_B_Educators_Guide.pdf

Journey to Planet Earth Video Links.

<http://www.youtube.com/user/Screenscope>

The Earth Day Network provides 300 lesson plans for the video *Plan B*.

www.earthday.org/education

Environmental Protection Agency (EPA) has the “Learn the Issues” section for information about water, air, pollution, and climate change.

www.epa.gov

The National Energy Education Development Project website provides resources for teaching about energy.

www.need.org

Population Reference Bureau offers data and demographic trends in health and education.

www.prb.org

Worldwatch Institute, founded by Lester Brown, provides short summaries of global trends.

www.worldwatch.org