

Environmental Justice: Whose Resource Is It?

Unit Overview

This unit focuses on environmental justice as it relates to sustainable development. It is appropriate for Grades 9 - 12. It is the goal of the unit to have students increase their understanding of environmental justice, what constitutes equitable distribution of environmental resources and services, and the factors involved in the decision making process. To achieve sustainable development, problems regarding the fair distribution of resources among today's population and for future generations must be confronted.

Background Preparation

The case study uses a role-playing activity to illustrate the many viewpoints in locating a new industry within a low-income, racially mixed neighborhood.

Application to Sustainable Development

The concepts of environmental justice and sustainable development are intertwined. A simplified goal of sustainable development is to meet the needs of the present without compromising the ability of future generations to meet their needs. However, the resources and services provided by the environment are limited. The ability of the environment to provide raw materials, energy, and waste assimilation is stressed as the world population grows and rates of consumption increase.

Grade Levels: High School (9-12)

SOL's: World History 11.15; World Geography 3, 5, 6, 7, 9, 11, 12; Virginia and US History 14; Government 11, 15, 16, 17, 18

Skills: defining, comparing, planning, concluding, evaluating

Key Terms/ Concepts: environmental justice, EPA, social ethics, subsidiarity, conflict resolution

These limitations mean that decisions must be made about how much of the environment's resources and services each nation, community, and individual is entitled to consume in a lifetime. Often, whether by conscious design or institutional neglect (Bullard 1993), minority populations in the United States disproportionately lack access to needed resources and bear the negative consequences of patterns of production, consumption, and waste disposal. To help some communities achieve sustainable development, a fairer distribution of resources among today's populations and between generations is necessary.

After completion of the activities students will correlate their decisions in a sustainable development chart that assesses the economic, environmental, and social consequences of their decisions.

Overview

Students will use a case study and role-play the different points of consideration in locating a new industry within a low-income, minority neighborhood. They will assess the economic, environmental, and social consequences of their decisions.

Objectives

Students will

- 1) discuss different views people have about the environment;
- 2) define environmental justice;
- 3) weigh the pros and cons involved in locating an industry within the neighborhood; and
- 4) evaluate the consequences of this decision.

Unit Context

In the context of our Hard vs Soft Green Framework (see Chapter 2), Hard Green advocates believe that the best way to help poorer communities improve their quality of life is by establishing a system of clearly-known property rights that provide financial incentives for private investment in green technologies and agricultural/industrial practices with long-term benefits for the landowners and, at least indirectly, the general public. Soft Green enthusiasts advocate reliance on consensus-based public planning processes that elicit stakeholders' commitments and proactively generate grassroots solutions to local environmental problems.

Background

For an environmental decision to be deemed sustainable, the people who are affected by it must embrace and support the decision. This is expressed in the principle of subsidiarity, which asserts that local stakeholders who have to live with the consequences of an action should be the ones to make decisions affecting their communities, i.e., control their own destiny. Unfortunately, this principle of social ethics is not always adhered to in the placement of landfills, incinerators, toxic waste dumps, prisons, and industries (including oil, chemical and nuclear). These facilities can be responsible for air pollution, contaminated food and water, degraded habitats, and safety or health problems for the residents of the community.

One of the major catalysts of the

environmental justice movement in the United States was the plight of a working class community in Love Canal, New York. In 1978, national media began to report growing health problems of residents of Love Canal, where decades earlier the Hooker Chemical Company had dumped toxic wastes into an abandoned navigation channel. Gradually, rain carried those chemicals to the surface, which caused severe health problems, including birth defects. While exposure to hazardous waste is an environmental problem, what elevated Love Canal to an issue of environmental justice was the connection between the low-income status of the town's population and its exposure to the environmental hazard (Dobson, 1998). The housing in Love Canal was less costly than in other neighborhoods, making it affordable to low-income families. Furthermore, when the contamination became known, the limited financial resources of the residents inhibited their ability to relocate to a safer environment. After Love Canal, the concept of environmental justice in the United States began to take form as study after study established racial and economic disparities in the distribution of environmental risks.

A safe and healthy environment, at least to some minimal "baseline" degree, is a basic right of all individuals and communities in the United States. The overwhelming reality, however, is that minorities are disproportionately denied this right and continue to work and live in polluted environments. For example, because of factors that include



economic necessity and lack of education, high-risk undesirable jobs often go to the poor or racial minorities. A 1998 study of steel workers found that 89 percent of minority workers worked in the more hazardous areas of the steel plant, while only 32 percent of white employees worked in the same areas. Similar trends were found among agricultural laborers, who are often exposed to serious environmental hazards - including cancer-causing agricultural chemicals and excessive dust. One calculation estimates that minorities make up 90 percent of farm workers (Camacho, 1998). Outside of the workplace, a number of studies show linkages between the racial composition and income status of communities and their proximity to hazardous facilities. A 1987 study by the Commission for Racial Justice found that three of the five largest hazardous waste facilities in the United States are located in communities comprised primarily of low-income African American residents (Camacho, 1998). Low-income families dependent upon subsistence farming and fishing are prone to highly vulnerable soils and water contamination, often related to their close proximity to a hazardous facility (Camacho, 1998). Furthermore, environmental laws and regulations are less likely to be enforced in minority communities. The National Law Journal found that penalties under hazardous waste laws at sites having the greatest white population were approximately 500 percent higher than penalties at sites with the greatest minority population, and abandoned hazardous waste sites in communities of color take 20 percent longer to be placed on the national priority list by the E. P. A. (Villanova, 1994).

It is crucial to understand that environmental justice involves the fair treatment and meaningful involvement of *all* people in the development, implementation,

and enforcement of environmental laws, regulations, and policies. All socioeconomic groups resent the situation of major hazardous facilities near their homes, but middle and upper socioeconomic groups possess better political and economic resources to mobilize their opposition. Zoning boards, planning commissions, and local and national governments are overwhelmingly white, as are most activist groups and environmental agencies; thus, minority communities often lack the political voice needed to articulate complaints. Furthermore, in an attempt to remedy this political imbalance and improve economic stature, minority leaders are often resigned to welcoming hazardous industries and facilities into their communities (Bullard 1993).

Be this as it may, environmental justice demands that no one group of people should bear a disproportionate share of the positive or negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of environmental programs and policies. This includes the consideration of future generations as well; the fulfillment of the needs and wants of today's population must not place an unfair burden on generations not yet present to represent their own interests.

Nonprofit and grassroots opposition, in the form of public protests, demonstrations, petitions, lobbying, reports and fact-finding, hearings, forums and workshops to educate the community has been successful in raising awareness of environmental injustice (Bullard 1993). Political organization provides a means for individuals to interact with one another, articulate beliefs, and try to reach a common understanding. Once a consensus has been reached over what is constituted as fair, political institutions can provide the means for redistributing society's resources through regulation, market incentives, and educational



efforts. In 1994, President Clinton signed an executive order addressing environmental justice, requiring federal agencies to develop strategies to combat and prevent environmental inequities (Villanova 1994).

Materials

Copies of Introduction to Town X (EJ 1) and character information (EJ 2-6)

Procedure

1. Brief the students on the situation provided in the background information.
2. Have students define environmental justice. How could it be measured?
3. Divide the class into two groups. Pick five students from each group to play a character at the “Task Force Meeting”.
4. In Group 1, each member of the group will read the Introduction to Town X as well as the five character profiles (i.e., everyone has all information about all parties involved). In Group 2 each member of the group will read only the Introduction to Town X.

Distribute to each character only his or her specific profile sheet (i.e., each character only has his/her information). *One of the keys to conflict resolution by finding “win-win” compromises is for people to truly understand others’ wants, needs, values, struggles, and situations. When people see each other as sincere, “real” people it helps to break down barriers and evokes more compassion. One of the purposes of this exercise is to demonstrate this principle and to illustrate the value of communication of personal information.*

5. The five characters will make a short list of important information about their issues. This will help to outline their own goals in the discussion; however, reiterate that they may use their original sheet anytime during the discussion.

6. Tell the students they are at the Task Force Meeting. Have the five characters introduce themselves, their occupation and where they live. The remaining members of the group are “objective” third-party members of the Task Force. The goal of the meeting is to decide whether or not to build the Selltech power plant. Students can discuss problems and then look for solutions and compromises. At the end of the meeting, every member of the Task Force (including the five characters) will vote whether or not to build the Selltech power plant and under what stipulations (site location, plant design, workforce, etc).

7. After each group has reached a solution, have the students present their outcomes to the class. Keep in mind that there is no “right” answer to this situation. Ideally, we look for an outcome where everyone “wins.” Inform the students that in one group everyone was given the same information while in the other group only select members were given select information. How did the outcomes differ? Did this have an effect on the results? If so, what key information was “missing” from the “public knowledge?” How did this affect the process and outcome?

8. Following the class presentations, instruct the students to look back at their definition of environmental justice. Ask them: Did it change? Was justice carried out? Are there aspects about it that you didn’t think about before? Is environmental justice always “clear cut?”

Enrichment:

1. Have students research (library, internet, interview, etc) and present a true-life case study. There are numerous historical cases as well as present-day issues. There may even be a case in your local area.

2. Explore some of the ways the government, activist groups and industry are combating issues in environmental justice. What are steps being taken to prevent environmental injustice? How can these various bodies help the average citizen who has a concern?

Possible sources for Enrichment 1 and 2:
<http://es.epa.gov/oeca/main/ej/nejac/> - Website of the National Environmental Justice Advisory Council, a federal advisory committee to the U.S. Environmental Protection Agency.

<http://es.epa.gov/program/initiative/justice/justice.html> - EnviroSense: Environmental Justice (EJ), President Clinton's Executive Order on environmental justice and other information related to the U.S. environmental justice movement and government response.

www.greenaction.org/index.shtml - Greenaction is an organization created by community groups in the southwest United States and former Greenpeace staff who have joined together in the struggle for health and environmental justice.

www-personal.umich.edu/~jrajzer/nre/index.html - University of Michigan site with information for students and the general public about Environmental Justice and about some of the current topics.

www.ejrc.cau.edu - Environmental Justice Resource Center of Clark Atlanta University Research, this contains information related to environmental justice, race and the environment, civil rights, facility siting, land use

planning, brownfields, transportation equity, suburban sprawl, and Smart Growth.

<http://www.tsulaw.edu/enviro/enviropg> - Environmental Justice Clinic of the Thurgood Marshall School of Law a public interest, environmental project founded in 1994 to lend the expertise and commitment of the Civil Rights and Environmental Movement to disenfranchised minority and low-income communities in Texas and neighboring states throughout the South that are burdened by various environmental abuses.

Also, using any basic search engine, enter the topic "environmental justice." See also the following resources.

Resources

Sierra, *A Place at the Table: A Sierra Roundtable on Race, Justice and the Environment*, 1993.

Bullard, Robert D. Ed., *Confronting Environmental Racism: Voices from the Grassroots* (South End Press), 1993.

Camacho, David E., *Environmental Injustices, Political Struggles: Race, Class and the Environment* (Duke University Press), 1998.

Dobson, Andrew, *Justice and the Environment, Conceptions of Environmental Sustainability and Theories of Distributive Justice* (Oxford University Press), 1998.

Dryzek, John S. and Schlosberg, David, *Debating the Earth: The Environmental Politics Reader* (Oxford University Press), 1998.

Introduction to

Town "X"

Town X is an economically depressed community, an old steel town. While Town X thrived in the 1970's, the 1980's brought a decrease in steel production nationwide, but the steel mill stayed open. In 1992, a low-income housing project was built next to the steel mill, unaware of the potential dangers caused by toxic waste being disposed of improperly. Finally, the steel mill was forced to close in 1997 because they had buried toxic waste on the grounds that leaked into the River YU.

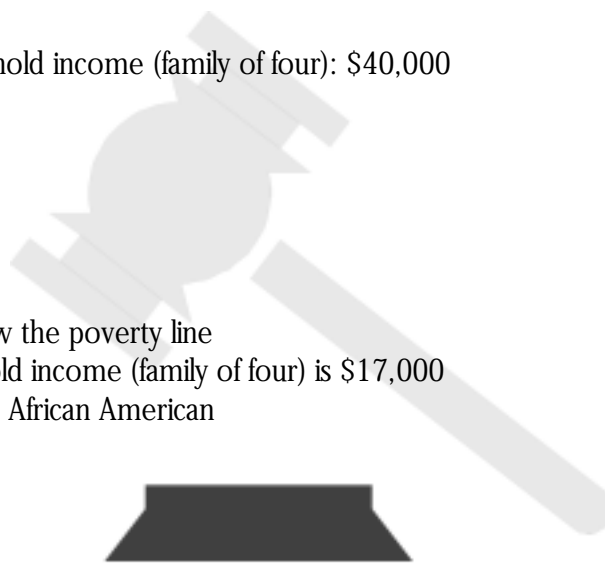
Currently the main industry in Town X is a paper mill, which opened in 1979. Located on the River YU, the Paper 4 Life (P4L) mill employs about 55% of the town population. Contrary to popular belief, the P4L plant is a relatively clean industry having no major Environmental Protection Agency (EPA) violations and an excellent community relationship. The biggest drawback is the constant smell of rotten eggs in the air due to the use of sulfur. Unfortunately, P4L has seen a downturn in profits over the past year and has begun laying off employees on the manufacturing and managerial levels.

Some demographic information about Town X:

- Mostly middle-class families: Average household income (family of four): \$40,000
- Ethnic make-up of town population:
 - 71% Caucasian
 - 20% African American
 - 8% Hispanic
 - 1% Other
- 12% of the total town population lives below the poverty line
- At the housing project, the average household income (family of four) is \$17,000
- Ethnic make-up of the housing project: 44% African American
 - 35% Hispanic
 - 20% Caucasian
 - 1% Other
- Town unemployment rate: 7%
- Workers in "blue-collar" jobs: 60%
- Workers in "white-collar" jobs: 40%
- Town's population is stable, surrounding area is growing

Selltech Power

The Selltech Power Corporation wants to open a new power plant to serve Town X and the surrounding region. The proposed site of the plant is on River YU upstream from the housing project. The plant will be powered by a combination hydroelectric and natural gas turbines (one turbine powered by water, two turbines powered by natural gas). There is an alternate site outside of Town X, however the town would not receive any of the tax revenue generated by the plant if it is situated there.



Town "X" Citizen:

Almos Poore

You live in the housing project next to the old steel mill. You are currently employed at the P4L paper mill, where you earn minimum wage on the factory floor. Your wife, Veri Poore, was also working there, but had to quit about six months ago when one of your children became very sick. You have two children ages 8 and 5. Your family moved to the housing project five years ago after your second child was born and you had just been laid off from another job.

Your eight-year-old child has leukemia and is currently in treatment. He is doing well with the chemotherapy, although it is difficult to see him so sick. Two years ago, Veri was diagnosed with breast cancer. She was forced to have a mastectomy and undergo intensive chemotherapy treatment to eradicate the cancer. Today she is doing well.

You feel that it is no coincidence that your family has been so sick. You think that the leaking toxic waste left over from the old steel mill somehow caused these illnesses. Although it was not known that toxic waste was leaking underneath the housing project when you first came, the truth is that you never wanted to move here in the first place because it was dirty and located right next to a steel mill. However, you had little money at the time and had no other options because you could not afford housing located elsewhere. You've been trying to move out since you arrived, but with the economy slowing, then Veri getting sick, and now your child, you just don't have the financial resources.

You are uncertain about the Selltech plant coming. The possibilities of a better paying job and good benefits are enticing, yet the thought of having more chemicals and possible toxins nearby is alarming. You don't know any specifics about the power plant and what sort of by-products it could produce and you haven't had time to find out more because, when you aren't working, you are at home or at the hospital with your child. You found out that there were meetings regarding the power plant after they had occurred, which made you angry because you don't receive the local paper and, even if you had known, the time (during the middle of the day) was impossible for you to attend. You feel excluded, as though you have no voice or say in the issue. It seems as though your opinion and those of your fellow residents are unimportant and being ignored. The next step is to attend the final "Task-Force" meeting.



Town “X” Citizen:

Anita Job

After losing your job at the paper mill four months ago, you are more than ready to get back to work. At the paper mill, you were a shift manager and earned a decent salary. It has been hard on your family because you were the main source of income. Your husband, Whatta Job, is a stay-at-home dad taking care of the three kids because childcare is so expensive.

If the Selltech power plant is approved and built in your hometown of Town X, it is possible you could find a job at the plant as a shift manager. You’ve heard that the plant will create 350 job openings; however, you also heard that 50 of those positions will be filled with current Selltech employees from other plants. This worries you because those jobs are usually the managerial jobs, which is what you are seeking.

After attending an information session given by Selltech (you saw an ad in the paper), you have discovered that a shift manager position at Selltech will pay \$5,000 more than your old job at P4L. Selltech also offers continuing education opportunities for their employees and more importantly, free childcare. This would be wonderful for your family because your husband would be able to work outside the home and provide more money to help pay for your family expenses. You desperately want your children to have the opportunity to attend college and the extra income would help you save for this.

You live on the main road through town. If the Selltech plant is built, traffic will increase dramatically, which concerns you. The property value of your home will decrease and, more importantly, trucks carrying natural gas to the plant will be driving by your house daily, and if one should get in an accident it could be disastrous.

You know that power plants can pollute the air. This is also a concern because two of your children have asthma, one of them with acute asthma. This has proven to be an expensive and time-consuming medical condition. On several occasions, your child with acute asthma has needed hospitalization, forcing you to take off of work while your husband kept the other two children at home.

There is an alternate site outside of Town X that Selltech investigated. If the plant were built there you wouldn’t have increased traffic and it seems as though this would put your children farther away from the possible pollution. However, it would probably be more difficult to get a job because more county residents would apply in addition to the numerous Town X residents.

The next step is to attend the final “Task-Force” meeting where you will be able to voice your opinion.



Town "X" Citizen:

Forest Green

You are a forester for the county surrounding Town X. You live right outside Town X, downstream from the proposed site of the new Selltech power plant. There are several things that concern you about the power plant. You've done some research and found that the proposed plant will have some serious negative environmental effects.



The proposed plant will level four acres of forestland, which can lead to increased soil erosion and runoff into River YU. In addition, new power lines will be constructed leading out from the plant, which will also cause more deforestation, and Selltech is known to use strong herbicides to control the vegetation around the towers.

The power plant will release a minimum of 2,500 tons of airborne toxins annually if they comply with the minimum EPA guidelines for air quality. It will also produce 250,000 lbs. of hazardous waste per year, which Selltech is required to dispose of properly. One other fact that worries you is that Selltech uses anhydrous ammonia to reduce its nitrogen oxide emissions, which is stored in large tanks. It is possible that these drums could leak, although highly unlikely.

There is an alternative to using the ammonia,

it is a dry substance called urea; however, it costs more than the ammonia.

You feel that it is no coincidence that the future site of the proposed plant is near the housing project. Its residents are poor and mostly of minority races. In general, they have been ignored in the planning process for town development. For instance, the original site of the housing project was supposed to be on the other side of the river, upstream from the steel mill. However, the land next to the mill was significantly cheaper to purchase and develop and, despite known environmental hazards, it was built there anyway. Later, when it was discovered that toxic waste was leaking from the buried drums next to the project, it took a long arduous court case in which residents of the project were forced to sue both the town and the steel corporation. You feel that a similar situation could easily arise if a power plant is built near the housing project.

Town X is in a serious economic rut. Although your job is not threatened directly, many people you know who work at the paper mill have lost their jobs, or could lose their jobs, because the paper mill is downsizing. The new plant would also provide a reliable power source, which will be a nice change from your current power company. Your electricity flickers constantly and, when a bad storm hits, you always lose power and the company is slow to get it back up and running.

The next step is to attend the final "Task-Force" meeting where you will be able to voice your opinion.

Town “X” Citizen:

Kilo Watts

You are a corporate executive for the Selltech Power Corporation. You live 75 miles away from Town X in the city of Metropoli. This power plant is a great opportunity for you. You will be the supervising executive over the Town X plant which will require you to drive to the plant once a week. However, you will earn 50 percent more than what you currently earn. You truly believe in the Selltech Corporation or, as you like to call it, the Selltech “family”. You’ve spent over a year researching what would be the best location for a new Selltech power plant. You and your task force chose Town X because of its great location on the River YU, the cheap price of the land, the low tax rate for industry, its hard working citizens, and the need for economic rebirth. You believe that this plant will lead Town X down the road to economic recovery as you have seen the “Selltech family” bring about such change in several other localities.

You know that Selltech will bring a much-needed boost to Town X’s tax base and an influx of economic activity. In addition to increased economic activity Selltech has a commitment to fostering community development. You have seen the positive effects of Selltech’s “Power for You” program, which addresses everything from teen mentoring to neighborhood clean-ups and restoration.

You know that there will be some environmental changes; however, you feel that change is necessary for progress to take place. You are aware that there is a housing project located slightly downstream from the proposed site and that there have been problems in the past with leaky toxic waste from an old industry located nearby. However, you feel that Selltech will not make those same sorts of mistakes and is one of the “cleaner” power corporations in the market today. It does its best to comply with all federally mandated regulations and goes a step further in trying to include local citizens in the decision making process when Selltech deems that it concerns them. In fact, several meetings were held to educate the citizens about Selltech, the proposed plant, and give an opportunity for them to ask questions and voice concerns. These meetings were advertised in the local paper, but turnout was low.

There is an alternate site outside of Town X in the surrounding county; however, the topography doesn’t lend itself to building easily. In fact, the modifications made to the plant to accommodate the land and construction costs will raise the electricity prices. You would also have to petition the county government to rezone the land. You think this will be a difficult task because of the strict open space laws. You would much prefer the plant to be located in Town X.



The next step is to attend the final “Task-Force” meeting where you will be representing Selltech.

Town “X” Citizen:

Landon River

You own a large piece of property in the county surrounding Town X. About six months ago Selltech approached you expressing an interest in buying part of your property and building a power plant on it. Initially you were upset because your family has owned this land for almost one hundred years. It started out as a farm that your great-great-grandfather bought and was passed down generation after generation. Today, you use part of the land for farming crops and the remainder as grazing land for your herd of cattle. You earn a modest income (enough to live comfortably) and your family enjoys the farming lifestyle. In your mind, this lifestyle is worth more than anything money could buy.

It seems illogical for Selltech to buy your property and try to build on it. The topography surrounding River YU, which you assume they will be building near, is rocky and hilly. It is not ideal for building a large power plant. About five feet down is a layer of solid bedrock which is difficult to break apart and move. Other companies have approached you in the past about buying your land to build on, but when they found out what was under the soil, they felt that the construction costs would be astronomical and found other places to build.

Another factor that has driven away companies in the past are the strict county open space laws. About ten years ago when Metropoli was experiencing a boom, the county residents wanted to prevent urban sprawl and petitioned the Board of Supervisors to zone the land so that it would be near impossible for suburbs, shopping malls, and industry to spill out of the city. Although Metropoli is on the opposite side of the county, these laws apply to the area where your land is as well. Selltech would have to try to get the land re-zoned for industry and the county residents have been vocal in the past about keeping the open space at its current status. In your opinion, the loss of farm and rangeland signifies a threat to your lifestyle.

It would make more sense for the power plant to locate in Town X. The economy of Town X is struggling and the taxes collected from the new plant would give a boost to the ailing town. It would provide money to build new schools (which are currently overcrowded) and a means to carrying out various town beautification projects such as building parks and repairing the apartments in the low-income housing project.

It would be nice to have that extra tax money in the county’s budget; however, your county is doing fine and there is not a budget crisis. One positive aspect of the plant being built on your land is that it is likely that more county residents will be hired to fill the jobs than if the plant were built in Town X. You assume that, since Selltech has not followed up on their offer, they are planning on building the plant elsewhere. You want to attend the “Task-Force Meeting” just to make sure that this is indeed the case.

The next step is to attend the final “Task-Force” meeting where you will be able to voice your opinion.

NOTES