



Sustainable Development: What does it look like in Vermont?

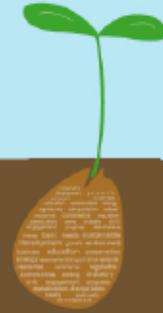
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basic needs

Monday May 5, 2008
2:30 p.m. Dickgeisser Room
Griswold Library

Learn the results of a service
learning project by ENV 3021
Sustainable Development class

Understanding Sustainable Development in Vermont

Reflecting on the Past, Envisioning the Future



Service Learning Project Presentation
ENV 3021 Sustainable Development
Spring 2008



Overview

- The Process
- Themes
 - Sense of Place
 - Retention
 - Capacity Building
 - Interconnectivity
 - Conservation
- Key Takeaways



The Process



Energy
Basic Needs
Land Use Natural Resources
Industry
Education
Civic Engagement

Sense of Place
Retention
Capacity Building
Interconnectivity
Conservation



Sense of Place

- What Do We Mean by Sense of Place?
 - Culture
 - Environment
 - Time
- Why is it Important?
- Examples
 - Dismas House
 - Vermont FEED
 - Suzanne Rappaport





Retention

- What Do We Mean by Retention?
 - Population – young people
 - Commerce
 - Culture
- Why is it Important?
- Examples
 - Internships/Vermont Businesses for Social Responsibility
 - Friday Night Live Series in Rutland



Capacity Building

- What Do We Mean by Capacity Building?
 - Education
 - Employment
 - Engagement
- Why is it Important?
- Examples
 - Vermont Academy of Science and Technology
 - Vermont Leadership Training





Interconnectivity

- What Do We Mean by Interconnectivity?
 - Communication
 - Mobility
 - Community
- Why is it Important?
- Examples
 - Vermont Chamber of Commerce Business-Education Partnership
 - Rutland Area Food & Farm Link



Conservation

- What Do We Mean by Conservation?
 - Natural Capital
 - Intergenerational Equity
- Why is it Important?
- Examples:
 - Efficiency Vermont
 - Vermont Land Trust



Key Takeaways

“When we try to pick out anything by itself, we find it hitched to everything else in the universe”

-John Muir



What Does Sustainable Development Look Like in Vermont?

Based on Mark Roseland's "Toward Sustainable Communities" book (pg. 2-40); March 20 class discussion, the "Livable Landscape" documentary, and discussion drawn from previous classes, please write a **500-750 word essay on "what does sustainable development look like in Vermont?"**

That is, assuming that sustainable development remains an useful concept that offer a balance of economic, social, and environmental synthesis, try to visualize and document in the form of this essay what sustainable development look like in the context of Vermont. It can be one thing or several things, the choice is yours.

Student Essay#1

For this assignment you have asked us, "What does sustainable development look like in Vermont?" I have chosen to focus on the schools and colleges in VT, and how they are adapting to the growing knowledge of sustainable practices. From what I have read in both the articles and readings from the book we are using I have found a lot about what the public and private schools in Vermont are doing in regards to sustainable development. In today's society, I think you must push forth sustainable practices. If we can teach the youth of today's society, I feel it will payback in the long-run, as well as years to come. Today, unlike when I was in school; you can take classes that specialize in sustainable development, making the students in this class better aware of certain ways to preserve the environment, other than ruin it.

I feel that the teachers in VT are a lot more conscious than teachers in surrounding areas. The teachers that are actively teaching in Vermont have probably acquired their teaching license during their stay at one of our great collegiate institutions or universities in Vermont. The reason why this is a good thing would be because Vermont is a very "green" state, and while attending the many colleges and universities in VT, you gain a great knowledge of sustainability. Just by being exposed to this knowledge, it is very unlikely that the teachers that have learned the ways of sustainable practice, and now they can hand down their knowledge to the youth of the nation. That is priceless. Vermont is making great strides in sustainable business; a lot of the businesses in Vermont are lowering their carbon footprint.

When students in the schools see this, they make it as the norm, and that means they know no other way to conduct business when they grow older, than to be sustainable and that is something that will happen, and we will notice as we get older. I think Vermont is a sustainable hub, or that's at least what the rest of the country thinks. If we can just expand the knowledge out of this state and into the rest of the classrooms in America, we would all benefit in the long-run. But until that happens, remember to recycle, because that is at least a start to something big!

Student Essay#2

Vermont is a strong candidate for leading others in sustainable development. Many of its natural resources have been preserved, and there is sentiment amongst the community for future preservation. There is also a knowledge base between the institutions which teach environmentalism. If Vermont wants to expand an industry, it should consider sustainable development. Several shifts in our way of thinking and the way we handle business will have to change however.

One thing that Americans will have to recognize is that our lifestyle will probably not be sustained indefinitely. We've equated economic growth, and an increased quality of life with development. Unfortunately this has led us to create massive wastes, which in our culture of consumption has been to the benefit of the economy. However, an economy based on constant resource supply and ever increasing rates of production is not sustainable. A shift in the paradigm of consumption will be essential. People will have to stop equating the economy and industrial output with development.

Another way to approach development is to address industry's inputs. We should work to develop greater efficiency, rather than relying on higher consumption to make profit. Efficiency should be handled at both the production and consumption levels. Money could be put towards scientific research to make greater use of the resources expended, and to minimize the amount of unwanted materials. Efficiency should also be stressed on the individual level. People can minimize their long term expenses if they were more educated, or if better technology were available. Vermont should invest in developing efficiency in production and consumption.

One way to regulate which already fits into our capitalist ideals is to include externalities in production. These things are already being paid for, but are not optimized by the free market (which works much better than politics for most goods). A standard for measuring the cost associated with pollution will have to be created. We already value ecosystem resources, scientists should measure a dollar value for pollution, which will be paid by the polluter. This is the best way to decide whether the public is willing to pay for a good or service. A pollution value standard will have to be created so that externalities can be paid for the businesses.

Another way which the free market can be used to help sustainable development is by educating consumers. Only with all information can people make the best decision about what they are buying. This will help consumers put money towards things they want, and decide not to help fund certain activities. The education of the consumer is paramount because our money is one of the strongest ways to influence what is produced. Not only can you teach the public how to maximize their efficiency, but you can inform them on different ways to spend their money, so they can decide what the market provides.

Another valuable resource which Vermont has and should develop is social capital. The integrity and drive of a community can be more persuasive than money, and can accomplish much more. Creating stronger community ties will link the people together and help actualize their visions of sustainability. This is a

resource that requires no input, aside perhaps from the cost of programs and public agencies. This will bring more local citizen participation to policies and choices on development. An informed public working together can accomplish more for their community than years of industrial development.

Maximizing human capital will have several positive effects for Vermont. It will increase local ties, helping statewide economies. It will also help social equity, giving a place for people who have historically been left out, including more and more people in the process. Theoretically, this could help alleviate poverty and increase the general quality of life. With this comes higher environmental quality, and thus natural capital. Integrating people with their areas and futures is cheap, and has many beneficial effects.

A paradigm shift is all that is needed to create a new industry in Vermont: sustainable development. By providing support to scientists you can increase the potential for green technology breakthroughs. Increasing efficiency will minimize inputs and unwanted outputs, increasing profit without expansion. Including externalities will make a much more discerning market, which will kick out uneconomical businesses, under the basis of ecological value. Increasing human capital will have many of its own beneficial effects, including helping natural capital, and social equity. Many of these things don't even have to be done by the government, but they all come down to public awareness and support. A simple shift appears possible, and would not necessarily even be expensive.

Student Essay#3

Sustainable development is defined by the World Commission on Environment and Development as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (Roseland 3). Another term to describe the aims of sustainable development is intergenerational equity, which we discussed in class. So how does society work towards sustainable development?

A number of actors need to be involved in order to work toward sustainable development. Sustainable development requires the collaboration of individuals, businesses, non-profits, and government. These groups may act using a variety of policy instruments such as regulations, voluntary actions, expenditures or financial incentives. The government is generally responsible for regulations, while voluntary actions are carried out by individual volunteers and non-profit organizations for the most part. Expenditures and financial incentives involve the government and businesses or a combination of the two.

With the actors and their roles in sustainable development defined, the path toward sustainable development can further be clarified with an overview of the main issues involved. In the March 20th class we made a list of the top principles of sustainable development in Vermont, though these principles may be applied to any place. The top areas on our list included land use/development, buying local, regional economic development, collaboration between businesses within an industry, renewable energy, public transportation, education, and culture.

I am going to focus on land use/development in Vermont since it was the focus of the *Livable Landscapes* video as well as the second chapter of *Toward Sustainable Communities*. Historically, towns in Vermont have been set up so that businesses

and other institutions are centered in the downtown, usually on Main Street. This is beginning to change though, with the introduction of sprawl. Sprawl is when “big-box” stores and strip-malls are built away from the town center, necessitating more roads and parking lots. Sprawl can change the culture of towns and challenge the viability of small, downtown businesses. Many Vermont towns are against the arrival of big-box stores, and try to promote small downtown businesses. Manchester is a good example of a town that has been successful in keeping out strip malls and big-box stores by establishing a building code.

An odd trend is that sprawl has primarily occurred during the time when the environmental movement gained strength (Roseland 19). Post war development has involved the middle class moving out to suburbs, which creates sprawl and causes the living standards in the city to decline. Cities can be made more attractive to live in by making people-friendly, pedestrian-only streets, and gearing other streets to bicycles and public transportation. Burlington already has pedestrian-only Church Street as well as bike paths and good public transportation. Other cities in Vermont could follow Burlington’s example and adopt this model as well.

An alternative development strategy in suburban areas is creative or eco-development, which is achieved by making efficient use of land and leaving green open spaces. Another alternative to the traditional sprawl of suburbs is co-housing, where houses outside of the city are built in a village cluster. This idea originated from the Danish co-housing plan which includes a community house, common backyards and parking, as well as other shared resources. Vermont would be a good candidate for this kind of development since it has a high level of social capital, which is the cohesiveness of social relations independent of the state or large corporations. Town meetings are an example of the strength of Vermont’s social capital.

In terms of land use/development in Vermont, planning is key in working toward sustainable development. City planning would involve a building code so that strip malls and big-box stores would not contribute to sprawl. An important feature of cities would be pedestrian-only streets, as well as streets designed to accommodate bicycles and public transportation. Suburbs would be designed using the principles of creative or eco-development, or homes would be organized in co-housing communities. Land use/development is only one aspect of sustainable development, but it offers a picture of what sustainable development could physically look like in Vermont.

Student Essay#4

Regardless of your metaphysical orientation, I believe that this excerpt from one of Taoism’s literary pillars, the *Tao Te Ching*, fosters the perspective we need if we are to address all of the woes—or opportunities, as I’d prefer to think of them—of the day in a way that will inspire hope instead of longing, solidarity rather than conflict.

Hope comes from the simple truth that we’ve already emptied forests of arboreal habitat, drained our freshwater sources to critical levels, killed off myriad species, and watched the vast majority of empowered individuals opt for a crooked path. The first phase of our collective fulfillment has been accomplished! From this humble baseline, the world is awash in upward potential. Even those of us with the

utmost faith in human ingenuity can no longer hold out on thinking business as usual can be sustained in this culture of unchecked consumerism. The bottom will drop out, so we might as well know what we hope to accomplish in the wave of opportunities that we will be faced with when it does.

The last line of this excerpt is rather ironic in that we have from one perspective given up everything (in terms of ecosystems' vitality) in exchange for unprecedented convenience and comfort (for the upper economic ten-percent anyway). The problem is, this adage only holds true under the false pretense that there is a dichotomy between human and nonhuman nature. In a world where everything is connected, you can't enjoy benefits whose costs supercede them because those greater costs are born by everyone. The only reason we've been able to accrue such a negative net balance of global assets is because the beneficiaries of the current system disassociated themselves from the true costs of their new-found convenience via externalizing them to natural sinks and residents of lower economic trophic levels.

When we absolve ourselves of our antiquated value system with its dichotomies and 'Us-Them' versus "I-Thou" relationships, we will appreciate the implications of there being only one Earth with its finite amount of water, soil, and atmosphere. And though we are fortunate enough to have the bounty of some renewable resources such as sunlight, biotic life, and our own labor, their perpetuity only holds if certain moral lines are honored—boundaries contingent upon a treating all biotic and abiotic matter as essential components of a single system. Skyscrapers are anthills; farmlands are beehives.

It is with this perspective that I will take to the task of broadly outlining what Vermont's sustainable self might look like. In order to have any reasonable, organized discussion on a topic so deep and interdisciplinary as sustainability, some boundaries and vocabulary need to be defined.

Sustainable development (SD) for our purposes is a process that facilitates all components of a system's ability to meet their needs both presently and into the unforeseeable future. It is a trans-species utilitarian ethic on a geologic timeline. It acknowledges that human interaction with the environment can yield net gains on both ends. Under sound SD, one never reaches a point where the wellbeing of two stakeholders are at odds. In such cases we realize that the project is (a) ill-suited for the specific needs of the proposed location, (b) the project is not as necessary as the pre-existing functions it would be compromising, or (c) the lens through which the valuation of outcomes was done is too heavily biased towards one of the three spheres I will be designating as boundaries for humans' roles in SD.

Conflicting self-interest is not unique to human—nonhuman relationships. While in general terms we all want the same things (access to food, water, shelter, leisure), we are conflicted even within our species as to the specifics of 'how much is enough?' and 'what means of acquisition are appropriate?'. To account for this I've broken down the human component of SD into three broad categories. These spheres have been created not only to consolidate similar perceived needs, but to unify stakeholders in terms of what they are best-suited to contribute towards the system's collective wellbeing.

Political Sphere

This sphere includes the stakeholders you would intuitively associate with its title, namely politicians from the municipal to state level. Legislators, judges, government agencies, quasi-governmental figures such as utilities, and all entities in this vein will be charged with codifying and enacting the newly defined will of the people and the ecosystems they conduct their lives on the behalf of.

The tools that will be available to this sphere are thoroughly outlined by Mark Roseland starting on page thirty-two of his *Toward Sustainable Communities*. A concise version of this regiment would include regulations, voluntary instruments, state and municipal expenditures, and financial incentives. While I hate to leave things so broad, but do not have the room to fully expand on the details of the political spheres role, I am including a bulleted outline of some specific programs that I feel directly correlate to SD.

-The relocalization of our way of life is a movement that will be born by all spheres, however, the Political Sphere's role in this will take the form of a state level tariff system. This will be an adaptation of Warren Buffet's idea of "Import Certificates" as detailed in his 2003 *Fortune* article "Squanderville versus Thriftville". While I am not an advocate of a cap-and-trade program that will create the need for a multi-million dollar oversight bureaucracy, I do see merit in a non-discriminatory tariff system that wanes in conjunction with trade deficits.

The way I see this working in Vermont is the statehouse at the end of each year review the value of its exports relative to its imports. It will then assign a tariff on all out of state goods (with US goods not be quite as heavily taxed as international imports) to make (a) Vermont-based firms more economically competitive, (b) garner revenue via the taxes that will go to a fund expressly focused on in-state SD (job training, entrepreneurship, etc), and (c) mitigate the negative ecological and social impacts of consumption. At the end of ensuing years, the tariff will diminish in conjunction with the extent of Vermont's trade deficit—relapses into greater importing will be unlikely as supply chains will have shifted to in-state channels which will have attained competitive standing via the tariff-based subsidies they received before.

-Another necessary state level program that needs to come into play is a tax on fossil fuel, nuclear, and large hydroelectric-based energy, the revenues of which will feed a renewable energy (RE) fund. The hope is to balance out the playing field for the nascent RE industry with the well-established over-subsidized energy sources previously mentioned. Beyond co-funding new power plants or research and development, the revenues of this Non-Renewable Tax will feed into RE vocational training programs in public schools and the state college system. Revenues could also cater to private citizens and businesses in the form of tax breaks or rebates for integrating RE technologies and conservation practices. Certainly the state's utility monitoring infrastructure should be expanded to include water metering and a more comprehensive live feed monitoring of electricity use. Much of this could be accomplished by simply infusing Efficiency Vermont, the state's conservation utility, with the resources it has heretofore been deprived of.

Civic Sphere

Comprised of private citizens, special interest groups, and coalitions amongst the two, the Civic Sphere is perhaps the most complex group of stakeholders—

especially since this sphere contains the stakeholders that also make up the other two. Focus areas for the Civic Sphere include:

- Formal and informal education channels
- NGOs formed to disseminate knowledge
- NGO task forces dispersed to municipalities to debrief community leaders and hold open forums with community members (get feedback) on all pending shifts

Commercial Sphere

- establishment of 'best practices' in the realm of environmental performance and social responsibility
- buttress organizations like Vermont Businesses for Social Responsibility and the Vermont Fresh Network with incentive packages for members, particularly exceptional performers
- loans to businesses at prime for decentralized energy development projects

It's interesting to note that the energy consumption of the United States breaks down into nearly even thirds comprised of transportation, electricity production, and industrial processes. While there is some overlapping and it's not a perfect fit, I think it would be reasonable to link the political sphere with electricity production, the Civic Sphere with transportation, and the Commercial Sphere with industrial processes. This is useful in illustrating that each set of stakeholders is both equally at fault and equally laden in opportunities for progressive changes. By each party addressing the issues most germane to their sphere on a regional scale, they will be tackling the macro issues that affect us all but in ways that are more effective due to their intimacy with their causes and solutions.

An additional advantage that I see in breaking down the responsibilities of revitalizing our collective way of life into three general spheres is that it enables there to be a greater level of accountability. The Political Sphere partially exists to regulate the Commercial Sphere, but the Civic Sphere is there to demand that the Political Sphere is representing the whole unit in an authentic manner.

Aside from keeping each other on task, these groups can —and must!—aid one another in the achieving of their distinct goals via coalition building. These three spheres must engage all further development and all current maintenance with the values that were asserted at the beginning of this essay present in both their vision and conduct. While it may seem anthropogenic to have broken up this discourse into three spheres comprised solely of human stakeholders, I have done so only because this is a call to action directly targeting humans. Implicit in all of this is the notion that the wellbeing of humans is inextricably bound to that of the rest of Earth's denizens. I do not feel that the explicit focus here undermines that as long as the values touted at the onset are authentically adopted.

In conclusion, what we perceive as crises today are really the settings for auspicious solutions that, if engaged in appropriately, will benefit the generations of tomorrow. The hardships we will need to endure to achieve an authentic sustainable way of life will only contribute towards our appreciation of what reaching that goal will entail. This societal transition will be most effectively accomplished via regional endeavors with a global-geologic focus, and a culture of

We have let ourselves become fragmented,
it is time to become whole.
We have distorted our views of progress,

it is time for our united wellbeing to take precedence.
We have emptied ecosystems of biodiversity,
It is time to design communities that include nonhuman life.
We have killed off entire species at unprecedented rates,
It is time to proliferate native and heirloom species (not GMOs).
We have forfeited the authenticity of direct living for hedonism,
it is time to satiate our needs with simple, seasonal ends.

Student Essay#5

Building and sustaining a society whose vibrancy is not only undeniable but also characterized by its ability to absorb shock and thrive in an ever changing global market is the challenge of every responsible, economically stable, culture. A sustainable Vermont is predicated upon the support of pillars in the fields of education, innovation and durability. These goals require visionary action, compromise between competing viewpoints and a comprehensive planning strategy that addresses the long term and interconnected health of the environment, the economy and the citizens who benefit from the positive stewardship of both. My vision for a sustainable development model in Vermont is quantified under three major headings; Future, Tradition and Region. Under these heading I see a scenario where planning for the future occurs simultaneously with building and preserving the traditional roots of the past, while growing the Vermont brand throughout the region to maintain and cultivate the local economy amidst the pressures of economic globalization.

Under these headings I see the goals of sustainability in Vermont being realized first in the minds of each citizen as public debate is encouraged and all ideas entertained. This is the step in which the application of visionary citizens have their input meshed with the practicality of economic and land use restraints. The visualization of Vermont's sustainable landscape by its citizens and lawmakers is an integral part to implementing a strategy for change that incorporates the ideals of a sustainable society. In terms of specific issues, energy, education and land use planning all have strong resonances in any conversation that involves future viability and security. This is far too short of a medium to address all three at once so I will tackle two briefly.

Many of Vermont's traditional industries are at risk from the dangers of a warming climate. Tourism, forestry and maple sugaring will be affected adversely. Building a society that contributes less and less to global warming is a way for Vermonters to be pro-active in their approach to protecting their economic and environmental resources. Regionally, Vermont is currently lagging in the field of renewable energy integration. More renewable sources of energy and greater education on energy conservation need to be adopted into Vermont's energy portfolio and building code. Efficiency Vermont is one of the many groups promoting this; however, many Vermonters do not receive their services because of availability issues. Vermont can build from this organization to further the education and implementation of these designs into new construction projects and in traditional Vermont homes. Although economically difficult, a direct transition to a more efficient, renewable, reduced carbon economy will be a sign to the rest of the region that Vermont is focused on environmental innovation, not economic stagnation.

Encouraging education of these key issues to the youth of Vermont is a great way to connect the past, present and future generations together. The penchant kids have for protecting the environment is a largely untapped resource throughout the world. Vermont can help create a generation of leaders with a solid base of well educated viewpoints on environmental issues. Investments in the future are already being made but if there is a more comprehensive shift in the way that Vermont children are taught, learning through books and experientially through hands on activities with local farms, artisans or naturalists. In this way, children will be exposed to the new sustainable society at a young age so that protecting the environment will not be a luxury but a norm. Urban to rural programs may have the greater affect of connecting more Vermonters to their state at a young age, which may in turn lead to greater economic growth in the long run. Growing the local economy through education and greater connectivity is not a traditional application of economic sustainability but should be adopted into any plans that attempt to address these problems with comprehensive solutions.

Student Essay#6

Vermont is a very different state compared to the rest of the country. Vermont has a “back-to-the-earth” philosophy, which draws many people to the state. Vermont holds their traditions and heritage closer to their hearts than most, for example the maple syrup industry and homemade crafts. The Green Mountain State is also home to many people who have a deep “Go Green” lifestyle or at least are “green enthusiasts,” who try to support local agriculture, and the like. Vermont is the only place that I have actually seen small-scale organic farms. Vermont is also a very “nice” state, being from out-of-state I have a good reference of people and can say that the people here are very friendly and have a good sense of community. Simplicity, greenness, community and caring are major concepts that make up Vermont. These things should be taken into consideration when planning Vermont’s future.

There are many positive things about Vermont but unfortunately economic development is not one of them. Vermont is one of the “oldest” states compared to the rest of the country, with a high suicide rate and most of the young people born in state usually leave after high school. Also childhood poverty, the raising cost of living, lack of affordable housing, slowing businesses, effects of global warming on snow and maple syrup industries are examples of the shadow lurking over Vermont. These are some examples of things that need to be addressed and fixed for Vermont’s future, if we want a successful one.

Sustainable agriculture is a key to Vermont’s future. The importance of agriculture should be addressed in schools across the state. If people get into growing their own food or at least learn to acknowledge the importance of farms early in life they will support local farms when they become adult consumers. Agriculture touches on the history of Vermont and can make people appreciate and care for the land. Bringing the public, farmers and government together can help communities for example, in addition to recycling bins, homes can also have composting bins and municipalities can pick up compost and bring it to a huge compost pile centrally located in town, local farmers and gardeners can then use this compost for their garden beds, this cuts down on waste and helps keep farmers from importing compost.

Community gardens or greenhouses, with each family getting a plot, could help increase the sense of community and get people talking and working together. Organic and local food is attractive to many people but the prices are usually too high. Affordable local produce can be provided by giving grants from government to local farmers so they lower the prices. Tax relief for grocery stores who can sell the most local produce can be a good incentive also.

The need to attract youth and business is something that Vermont must address. Denser downtowns could be an alternative to rural sprawl. By taking advantage of infrastructure that is already there or adding buildings in between other buildings, towns can convert these into affordable housing or low-rent business space which is a good way to attract businesses and more people to the same amount of space already being used. Denser downtowns will be more convenient and have more public transportation which hopefully will attract more people. Downtowns can also attract young people through low-rent apartments, being art oriented, having bars and restaurants even a possible music venue, and most importantly jobs. By having more internship positions available for college or high school graduates can keep them in the state as well.

There are many issues that need to be discussed about the future of Vermont. Starting in the schools is a good way to begin and by educating and getting the public involved with decisions is a good way to find their support. Technology is not really associated with Vermont but it can serve as a way to protect the environment and connect people together. Vermont needs to stay true to its values and traditions but needs to think of new ways to get new people and business here so the state can financially support its Vermont ways.

Student Essay#7

Vermont has a rich environmental heritage. It has been populated with farmers full of resolve, attempting to make things grow through the cold winters and in the rocky soil. During the Vietnam War there was an influx of draft dodgers and liberal minded individuals.

Today Vermont is comprised of different groups of people, here for different reasons. Most of them however, have one thing in common: they are here for the environment, for the land. Skiers, aged hippies and fifth generation farmers alike have chosen to live here, because the land offers them something that they can find nowhere else. As such we must preserve this land, and what it offers for future generations.

This is sustainable development, the idea that it is possible to both raise the standard of living today, while assuring a high standard of living for those who will live years from now. In Vermont there are several key areas that must be focused on, in order for sustainable development to be achieved. Environmental and local-cultural education must start the process. Towns and counties, as well as the entire state must have more strict and planned zoning.

Finally it is not acceptable that Vermont lose its agricultural base. There must be increased opportunities for local companies, including farms to thrive. The social capital necessary is available, and the land-based organizations that will be needed are already formed and active. All it will take is a willingness to make sustainable development an integral part of the states agenda.

Vermont has a unique history. The area that now comprises the state was at one time claimed by Massachusetts and New York as well as New Hampshire. Following this it became an independent territory and was called New Connecticut. Just before being accepted as the fourteenth state in the fledgling Union, the territory adopted the name Vermont.

Today the state is faced with a situation similar to the one it faced over two hundred years ago. The land of this state is being claimed by people from southern New England and all around the country. It is beyond rationality for any state to disallow the purchasing of land by people from out of state. This policy would also be disastrous economically.

However it is possible to educate the people who move to Vermont, as well as their children, about the past and present in this state. Vermont must not lose its Environmental values and cultural heritage because of an increase in out-of-state population. To stop the watering down of values and loss of history it will be necessary to implement a statewide curriculum that gets kids in elementary through high school out of the class room and in to the environment.

More local history classes as well as agriculture classes in high school will help to build cultural capital. It will motivate a generation of new Vermonters to not only make Vermont a better place to live, but also to keep what is already good about the state at the same time. Hopefully this education will breed active citizens who feel a sense of pride in being from Vermont, and who will choose to stay and contribute to the state that raised them.

The next great evil associated with an influx in population is an increase in urban and rural sprawl. While development is necessary, it is not acceptable that new communities be built in unsustainable ways. Vermont is for the most part rural; living in the countryside in Vermont means implicitly that one will not have access to certain amenities available in suburban New Jersey. The implementation of Zoning and planning will be a three pronged process. Towns must increase preservation of woodland and currently uninhabited land.

There must be better planning of new housing communities. Sustainable land saving models must be used, not only in the countryside, but downtown. Town areas must be innovatively designed and must be accessible to rural dwellers through a better network of public transportation. Houses must be efficient in their use of energy, in other words they must be well insulated and contain other energy saving devices. These may include solar and wind power.

Agriculture is an important part of Vermont's economy and history. Farming as a way of life must continue in Vermont. This will increase sustainability inherently through the availability of locally produced food. Within this agricultural framework are many opportunities for agriculture and other businesses to enter in to a mutually beneficial relationship.

Food Coops and all-local grocers will not only provide jobs, but the ability to distribute more locally produced food. Restaurants and tourist areas can profit, by providing all-local meals to skiers and other visitors. With the proper networking and increased communications through better internet connectivity statewide, a framework of interconnected healthily competing industries could be

created. These companies will not only preserve Vermont, but make money in the process.

All of these policies will require action by state and local governments. Towns must make the decision to save and preserve land, while developing in more sustainable ways. The state must create a better public transit system. The state government must come up with a local history and cultural heritage curriculum and institute it in public schools. The state legislature will have to subsidize local farming and businesses that support it. The state legislature will also have to adopt higher standards for power companies and clean energy will have to be subsidized.

NGOs will have to push always for these changes and the preservation of the environment. They will be the aggregate voice of the public that is often lost in the disconnect between voter, and representative.

Though these are many hard tasks that will require money and time, they are important and possible nonetheless. With a plan in place and a goal in mind it will be possible to make Vermont a sustainable state that will be able to provide to its residents far in to the future.

Student Essay#9

For sustainable development to take place in Vermont, communities need to move towards being concentrated in one area, with lively centers in which socialization and community engagement can take place. The biggest problem I see with Vermont is that it is so spread out and is one big sprawl. The way Vermont is currently is not sustainable because there is no public transportation and the state is covered with small towns.

While I agree that small towns can engage in a local economy, I think the possibilities are limited and that youth will tend to go to larger cities where more opportunities are available. For sustainable development to be realized in Vermont there must be planning and regulation on how future development will be done and Vermont must seek to design communities that are not dependant on the personal automobile.

I think this is crucial because when people need a car to get around, it leads to a further commute from house to work and a more individualistic society. To me, sustainable development is about getting the most out of resources used and developing a place where sustainability can be realized. For this to be possible, communities must pull their resources together, both social and physical, and collaborate in order to realize a healthy community.

The “Livable Landscapes” documentary provided a visual to what a community would look like if it were clustered, instead of the traditional development sprawl. Toward Sustainable Communities also gave images of what sustainable communities could look like. It is important to understand that development looks differently depending on the geography and population density of a given region. Development in a place like rural Vermont is very different from that of an urban area such as southern California and Roseland’s book does a balanced job in showing this. In the context of Vermont, you can see by the images in the book that Vermont looks just like “after conventional development,” and that there is

an alternative to this known as “after creative development.” Instead of developing open areas for spread out houses, people can live in close knit communities and still have the open spaces that can be used for farming, recreation, or even aesthetics. While Vermont has not become as bad as New Jersey in terms of clear cutting forests and replacing farms with housing developments, as the population continues to grow, Vermont is not exempt or safe from the possibility of becoming just like any other populous state.

As this course looks to help with the planning of the future of Vermont, I would like to draw some ideas from the March 20th class discussion. I think that land use planning needs to be in the forefront of concerns because Vermont has the ability to decide how it wants its landscape to look. If they want to keep the rural atmosphere, they can still develop sustainably by building community clusters. These communities need to have a vision for the city that plans accordingly to allow for people to get around by food and bike, which would also foster better health by people to rely on their own energy to get around.

Vermont must manage their ecosystems in order to ensure that the air, water, and life can live in a healthy manner. Environmental education needs to be taught in the schools so that the next generation can understand the interconnections and interdependences of humans and the natural world; including the understanding of local ecosystems and economies.

Public transportation is crucial to the sustainability of Vermont because it would decrease reliance on a personal automobile, and would help reduce the dependence on fuel. Vermont needs to address the lifecycle of goods, and have statewide recycling and garbage conservation initiatives. All these points I mentioned are possible if communities come together locally, so they can see the changes that are possibly by being conscious and making adjustments to human’s impact on the world.

In conclusion, I think that sustainable development is possible for Vermont, but that it requires planning and a vision. Sustainable communities can be influenced by top down government initiatives, but ultimately it must be initiated from the bottom up. It all starts from the people who make up the communities, and that is why The Future of Vermont group is going around collaborating with communities around the state. I hope our class can contribute to this project and develop a vision for a sustainable development for Vermont.

Student Essay#10

The ideal vision of a sustainable community varies from area to area and is continuously adjusting to meet the social and economic needs of the citizens of these communities. It is important to look at the social and economic issues that shape the community, or state, and self-design the best program and goals to meet those areas sustainable development needs. Vermont has valuable rankings, such as one of the best states to raise children in, the 2006 the 4th most livable states, and a 7th highest among other states for the number of residents covered by health insurance.

Unfortunately, these rankings are declining and some of the rankings are far from notable such as suicide rates and domestic and sexual violence rates. What does Vermont have to focus on when trying to build sustainable communities and

development? What could Vermont look like in the future with the proper focus in place? By centering on a few key elements of Vermont's well-being we can answer these questions.

I believe that one of the most important things for Vermont's future is to focus on keeping the citizens of Vermont in state and also attracting other people to move into and contribute to Vermont's well-being. Vermont has a reputation for having a high number of out-of-state students attending Vermont colleges and a low number of actual Vermonters staying in the state for college. There needs to be something attracting and maintaining residence in Vermont. I believe that one way to do this would be to have state-wide health insurance to all. Insurance cover is broad but declining because of the increase in cost of living and also due to self-employment and small business ownership.

I believe that the ability for self-employment and small business ownership should be a positive thing for the social and economic well-being of Vermont; therefore, health insurance should be readily available and reasonable to those people and all people despite the cost of living.

I also believe that education should play a huge part in helping the future of Vermont. Environmental, local heritage, and local economy education along with after school/programs to promote responsible citizenship, should be required and readily available to all students starting from a young, pre-middle school age. This could help Vermonters feel safer in their school environments, have a better understanding/appreciation for their community and state, and perhaps lower the rates of drugs, violence, suicide, and prison population. There is an environmentally aware and community involved association with Vermont. No better place but in classrooms and school's education to keep that state-wide and evolving into future Vermont generations.

One valuable point that should be the focus point of sustainable development is making sure that the development and use of resources is not compromising future generations. We should always be thinking, 'by doing this, how will future generations be affected, whether negative or positive.' I believe that one way to assure this is to efficiently use the existing developed/non-developed areas. It is inefficient to use 'untouched' land for developmental purposes if there is pre-existing developed land available. Maybe a reconstruction or rehabilitation of the old would benefit an area better than starting over from a current undeveloped area.

A lot of the time the development should be focused in the downtown area of the town or city since that is usually an attracting feature. An efficient use and sometimes rehabilitation of a downtown area can save a town, that development should be primary focus over starting a new 'hotspot' somewhere else. Also, since Vermont has a lot of farmed land, efficient use of that existing area rather than creation of new farmed area is necessary for the future land use of Vermont.

With a better understanding of the community and state we live in, better reflection on the future generations and success of Vermont, and the resources and attributes necessary to keep current citizens and future citizens actively involved and in Vermont could lead to a self-designed sustainable community and development future. With these goals, along with many others that could be added, Vermont could be one of the leading states for sustainable development

practices and flourish economically, socially, and environmentally leading to not only a better future for generations to come but for a better future for our environment. Vermont can use its values and community based approach to become a very profitable state while keeping its history and values intact.

Student Essay#11

I feel that the concept of sustainable development will flourish within the state of Vermont because of the already implemented “green” theme that Vermont is famous for. Many areas of Vermont are already being sustainably developed, and many colleges and universities are taking sustainable initiatives under their wings.

Environmental education is very high in the state of Vermont, as well as environmental implantation. I feel the future of Vermont’s sustainable development is dependent on economic, social and environmental factors. As far as economic concerns in Vermont, we can definitely look towards the job market.

Since the job market is very low and competitive within the state, we need to figure out how to boost the job market so we can have sustainable developers. I feel that Vermont’s future of sustainable development is directly dependent on the job market, and that it’s possible for the job market to actually be the source for sustainable development. If you combine green economy, environmental stewardship and social justice, you can create a better job market within this already green state.

Vermont should be awarded grants and organizations should be given assistance in order to help Vermont find sustainable alternatives such as renewable biofuels and energy, sustainable forestry techniques, and sustainable agriculture techniques. The Vermont Sustainable Jobs Fund (VSJF) helps to develop and support growing enterprises and business networks within natural resource based sectors through grant-making and targeted technical assistance.

They do this by working with entrepreneurs and consumers to develop both the supply of and demand for goods and services that are sustainable, create quality jobs, and build on Vermont’s entrepreneurial heritage. This allows the job market to open up more and it also allows employees to work off of “natural capital” which yields a flow of valuable goods and services in the future. By sustainably developing, you’re actually working towards changing the way the economy works. This can be a massive turning point for the prosperity of the state of Vermont, or any location that values and implements sustainable development.

I feel that socially, it is important to educate students and the public about sustainable development as well. There are a lot of people who do not know or care about sustainability, especially the older generation, so it is definitely important to educate.

Keeping local communities strong with local economies in a cluster-like fashion can help because you can hold town meetings and allow sustainability awareness to grow. This pushes for a greater sense of “social capital,” which includes community cohesion, connectedness, reciprocity, tolerance, compassion, patience, forbearance, fellowship, love, honesty, discipline and ethics, and commonly shared rules, laws and information. By allowing issues to be heard within small communities all over Vermont, you can eventually create sustainable development

within small towns that add up to a lot statewide in the end. Also, college towns can contribute greatly to this type of education. Schools like Southern Vermont University, Green Mountain College, and The University of Vermont are environmentally-rich colleges that can connect with their local communities by holding meetings or educating at lower-level schools. By educating the youth, they grow up with a different state of mind: one that's more geared toward environmental awareness.

It becomes more engrained in their values and allows for environmental impacts to always be considered when speaking in terms of development. "Economic capital" is maximizing the use of existing natural resources. This can happen quite readily in cluster communities because you can rely on local sources for resources which decreases transaction costs, transaction time, and strengthens the reputations and relationships between local businesses which contributes to social capital.

Strong communities represent a livelihood that can create amazing progressive choices, like those concerned with sustainability initiatives. The dilemma associated with this concept is getting everyone's opinion heard in a democratic fashion. Sometimes an incentive is required to get everyone involved. I believe that Vermont is already on the road towards sustainable development. A strong job market coupled with strong localized cluster communities can create a strong base for the future of sustainability within Vermont.

Student Essay#13

The motivations behind sustainable development I found to hold significant weight, and think should be included in the definition. "to improve the quality of community life, protect the environment, and participate in decisions that affect us...satisfaction that money can't buy" (Roseland 2). When it comes down to economics of the planet it is easy to just place a dollar value on all of earth's resources without taking into account the inherent value beyond that.

All the ecosystems combined are worth around 33 trillion dollars, that's only the value for humans (Roseland 7). If the earth were to be radically altered in a way that it works no dollar amount could replicate what was lost, basically, I think it is unproductive to put a dollar sign on something that is priceless.

When it comes to sustainable development in Vermont there is a lot that can be done. It is important to talk about this issue in such a way that people want to be involved and not be turned off to the idea. This is where effective messaging comes in. Sustainable development should be seen as a wonderful opportunity for the state to make it's self better, and not as taking a step back into some dark age.

People most come to be educated that reducing our dependence on energy and resources would enhance the quality of life (Roseland 13). People are naturally resistant to change, and change is not going to happen if you do not let happen from the bottom up, you can not beat people over the head with something, it will not last.

The beauty of sustainable development is that there is no one clear cut mold for it to work. Each community has it's strengths and weaknesses and different resources, both physical and intellectual. Clusters are needed within a small area

to enhance community and thoughtful development. In Vermont, a rebuilding of downtown areas is a great starting place. This is to help cut down on urban sprawl and to revitalize the community. As we saw in the video “Livable Landscapes” some towns are already doing this and seeing the benefits. It is unfortunate the United States was planned so poorly and so spread out. As we continue to build we should not look for some fresh piece of land to tear to pieces, but should instead put emphasis on rebuilding areas that are no longer in use and abandoned.

The increase use of public transportation in the state could also serve to aid in a lot of problems. Instead of spending millions of dollars on a highway to temporarily ease traffic congestion the money would probably be better spend on more public buses and strengthening the public transportation sector as a whole. This way the problem is actually fixed and not just temporarily and not in a way in which the problem will repeat itself by attracting more cars to drive the highways.

When people in Vermont are thinking of ways to be build sustainable communities they should avoid just merely important sustainability (Roseland 19). Instead of just closing off land and then needing to bring in outside resources a community should use what it does have to insure long term success and still minimal negative local impact. This would reduce the problem of things being out of sight so there for out of the mind of the people, making people responsible for their consumption patterns and lifestyles.

It seems that sustainable development can be guided easily by the implementation of policy. If industries and individuals have to start meeting quotas then change will happen. Companies however can only begin requiring a certain percentage of their employees car pool and use public transportation if such structures are in place. So policy must be coupled with practical means.

When I was in Berkeley, California this past summer I was surprised to see side roads in which bicycles were giving the right of way instead of cars, and stop signs with the word 'DRIVING' written underneath the word 'STOP', and how a working public transportation system does reduce the amount of driving needed to get to places. This can only happen with strong urban centers, public desire, reliable public transportation and solid policy making. Something which, as well as strong communities and an assortment of resources, Vermont has.

Student Essay#14

The success of sustainable development in any area requires the effective implementation and integration of a variety of factors. Some of these factors are more important than others depending on the regional area in which they are being applied to. The most basic and necessary factors include education, land use planning and zoning controls, energy usage, supportive programming for low incomes, and regional economic development. Most importantly these factors must be integrated in a manner that encapsulates the values and visions of the region's community as a whole.

It seems that sustainable development specific to the Vermont region requires a prime focus on the conservation of land, both public and private, the preservation of Vermont's cultural heritage and ensuring the distribution of economic stability throughout the region. This can be made possible with the support of funding

through subsidies. Utilizing the unique strengths of the local area and its current operations will also help sustain regional economic development. The success of these efforts begins with the level of quality in educational services.

With education being of the highest priority, a large amount of funding should be allocated to the success of programs such as integrated environmental education. The benefits of environmental education include an understanding of the area from both an ecological and cultural standpoint. Getting students into to nature and facilitating an understanding of the history of their surroundings to the fullest stimulates an appreciation for the outdoors. This will ultimately generate thoughtful management of the natural environment and its resources as well as the preservation of Vermont's cultural heritage leading to a necessary sense of place among community members.

Without a sense of place citizens lack a connection with other members of their local community and disregard the importance of sustaining the environment. Education can also facilitate an understanding of current public policies and procedures which will assist in the improved civic engagement within local communities.

Improved contribution among citizens increases the probability of having personal values reflected within important local decision making. Land use planning and zoning control is one factor that requires the educated input of local community members. The awareness of more effective methods of land use and resources has often led to critical movements towards smart growth and clustering.

These more effective methods prevent urban sprawl allowing for more open land, less need for long distance travelling, reduced pollution, tighter-knit communities and greater availability of public goods and other shared resources. This reduces dependency on imports helping to sustain the local economy as well. It's important that Vermont communities take action in order to regulate further development and allow for the many potential benefits of strategic planning.

The visions I see as most important for sustainable development in Vermont may not be the same visions for the whole of Vermont. Whatever that vision may be requires the efforts of Vermont's leaders and community members to take action towards seeing their common vision realized. It's important that priorities are acknowledged and through this, a step-by-step process to reaching their personal goals should be outlined.

Student Essay#15

The idea of what sustainable communities would look like in Vermont will vary depending on the individual defining sustainable development. Although definitions will vary there are common connections or concerns that are shared by most, for example, economic security, community vitality, ecological integrity as well as a commitment for future generation's welfare are some of these common connections that will intertwine when one tries to define or vision what a sustainable community would look like.

To define a sustainable community just a bit further would also include the positive attributes that come along when searching for an effective solution to

become a more sustainable community rather than becoming victims to social forces and trends.

My vision for Vermont becoming a sustainable community would look a lot like past generations before the industrial revolution with some sort of combination of doing things like the “olden” days plus working with future technological advancements to help reduce our ecological footprint. I believe there is no one right combination for a generic process to be put into place for all communities throughout the world, but each community would differ and vary depending on the diverse environment as well as how much the community is willing to participate with.

Diversity is certainly the key part of the equation when defining sustainable development. The field of sustainable development contains many different professions within the field including people studying the environment, economics, sociology, many different types of sciences as well as involving the government and non-government agencies. When one understands how intricate and diverse the field of sustainable development is than one could begin to understand how different each individual’s vision would look like when imagining what Vermont would look like as a sustainable community.

I believe communities willingness and strength is huge when trying to vision a sustainable community. The willingness to want to better the community will help give the ability for a sustainable community to become successful and if a community is unwilling to see the damages that have been imposed to the community at hand then they will not be willing to see change become reality.

Once a community is willing to reduce their ecological footprint then ideas are much easier to implement and have the willingness of the community to participate as well. This will also emphasize to the community that each individual can participate and can satisfy their voices being heard when decisions for the community are being addressed and give the ability to participate on allocating local resources that will be used within the community.

I believe if we interweave all these diverse fields into sustainable development success will follow. I believe this field has many obstacles that will be faced with the continued discussion on sustainable communities and how they can become successful. I believe open-mindedness as well as the interdisciplinary of all these fields will help sustainable development become successful in Vermont.

Student Essay#17

Is Vermont sustainable? If so, what is the evidence of its present sustainability and its dedication to continue practicing sustainable growth? “Sustainability” is a highly variable term and its definition relies highly on the locals’ views and expectations. In several areas of the United States, especially where the population is mostly conservative, Vermont might be viewed as a particularly sustainable state. However, in areas such as Europe, Vermont may appear as a state that has work to do before reaching sustainable levels of development.

In some ways, Vermont has already reached a limited level of sustainability. Urban sprawl is controlled within the state, enabling much of it to remain as forestland or agricultural land. Vermont is scattered with farms, many of which practice sustainable

methods, that help encourage local trade and consumption. The state is also home to at least two educational institutions dedicated to sustainable development, University of Vermont and Green Mountain College.

These institutions attract sustainability professionals to the state, who can contribute to Vermont's research efforts and idea base, potentially reducing the state's dependence on nonrenewable sources of energy. Despite these stepping stones in place, it is no secret that Vermont is far from truly sustainable.

There are many more achievements that Vermont must undertake before it can be considered sustainable, including the controlling of rural sprawl and advancements in local politics, access to education, access to public transportation, and the structure of the communication system. The first step of sustainable development within Vermont is to address sprawl. While sprawl, especially urban sprawl, is not yet a significant issue in Vermont, sprawl will increase in importance as the population of Vermont increases. Vermont governor Jim Douglas hopes to increase the permanent population in Vermont in hopes of sparking the statewide economy. If he, and other governors following him, accomplish this goal, the rising population must be treated properly. This means to restrict sprawl as much as possible.

In urban areas, developers can control sprawl by concentrating people in higher densities. In so doing, developers will be preserving more of the beautiful land that Vermont uses to define itself through recreation opportunities and tourism destinations. They will also be making the most efficient use of available energy and public transportation systems.

However, urban sprawl is not the only damaging type; rural sprawl can make drastic damages to wildlife habitat and resource bases. To reduce the impact, improved agricultural areas should also be as concentrated as possible and should also use solar power. To help accomplish these goals, Vermont should set a few standards. One standard should aim to limit sprawl by setting limits on the amount of area that urban/rural areas should be allowed to encompass and by also setting limits for the minimum and maximum density. Another standard should be set that would mandate the use of solar power in lower-density population (or rural) settings.

Another important change that must take place for the implementation of sustainable development in Vermont is a boost to citizen participation in the decision-making process. Involvement in local politics is essential for sustainable communities, as wealth in truly sustainable communities must be evenly distributed so that everyone has equal impact on the natural resources. Inequities in wealth leads to poverty, which in turn leads to added stress on the natural resource base.

Having all publics participate in the political process makes the redistribution of wealth fairer and more widely understood. In Vermont, all population centers, whether urban or rural, should begin to mandate, under fear of a fine or perhaps even jail time, that all citizens should sit in on town meetings to voice their opinions and understand the important policies.

In addition to these new policies, Vermont will have to, along with numerous other changes, improve access to education, access to clean public transportation, and the communication infrastructure. Widespread access to education and a superb communication system are essential to sustainable development for a similar reason that citizen participation is; sustainable development must be understood and

supported by all publics in order to be implemented. Without a true knowledge of why sustainability is so important, people will continue to buy too many items that have been produced from too far away.

Access to education in Vermont already appears to be satisfactory; the authorities must now concentrate on adding sustainable development as a requirement within the statewide curriculum. In addition to the educational benefit, effective communication between local governments is also essential because cooperation must continue to exist between all communities. Without effective communication, one government may accidentally negate all the positive progress that another had made.

Neither the communication infrastructure nor the public transportation infrastructure in Vermont is adequate for a sustainable future. Presently, there is a lack of publications that truly connect all of Vermont's small towns, just like there is a lack of public transportation; no statewide busses or trains run to all of Vermont's towns. Sustainable development in Vermont would begin to see clean transportation running all throughout the state, including in the rural areas. Clean transportation may include, for now, trains, but will hopefully include solar-powered busses in the future.

On the communication front, the government of Vermont should create a publication that is delivered statewide, but that does not ignore the value of local news. This publication will incorporate news for each region without sacrificing content or quality. Although a print version will be necessary to connect to the state's elderly population, the ideal medium for this publication will be over the Internet, which will reduce pressure on Vermont's forests as well as making the publication as widely accessible as possible.

In conclusion, Vermont still has a ways to go in terms of sustainable development. However, through the improvement of its communication system, access to public transportation, access to education, access to citizen participation in the political process, and sprawl regulations, Vermont will come very close to achieving sustainable development. Remember, sustainability is defined by local citizens, so adequate education and access to political decisions is essential! Fortunately, Vermont is well on its way to giving citizens adequate power.

Student Essay#18

Vermont is very progressive and one of the top healthiest states in the USA to live in. Its industry focuses on slate, maple syrup, dairy, and recreational opportunities. Despite its beauty and marketable niches, Vermont's youth population is shrinking simultaneously as its birth rates are declining; on the other hand, the number of elderly continues to grow. As Governor Douglas stated, "Vermont just doesn't offer many opportunities. For someone who's young and trying to make a name for himself, it's just not really the best environment" (Belluck 2006).

With the challenges of strip development, rural and urban sprawl, and land fragmentation, Vermonters are tired of facing their values change with current economic growth and construction; Vermonters want to know what they can do to stop their values from changing (Livable 2003). According to a documentary of Vermont, Livable Landscape, by Melissa Paly, towns like Littleton, VT welcome development from businesses like Wal-Mart to assist jobless citizens and boost commerce; yet, the people are concerned about maintaining commercial activities at their "heartbeat of the town" on main street (2003). In order to address sustainable development, envisioning

sustainability needs to happen before moving towards it (Park 2008). Ultimately, what would sustainable development look like in Vermont?

Sustainable development encompasses social improvements for current and future generations while improving environmental integrity and services through preservation or protection. Based on class discussions, the top priorities for sustainable development in Vermont must focus on land use planning/ zoning, multifaceted education system, and greener production and energy. For most of Vermont, zoning regulations do not exist. In order to continue the supply of natural capital, such as renewables, the necessity for developing in a way that maintains or improves the environment is essential in order to allow future generations a supply of resources.

Indicated in class discussions, the documentary film, and prior knowledge, Smart Growth is the new direction for sustainable development. Smart Growth emphasizes concentrating and mixing development in preexisting infrastructure while deemphasizing development in less suitable, undeveloped areas (Randolph 2004). It steers development pressures away from greenfields and environmental sensitive areas, but creates a design principle to preserve Vermont's rural, agrarian character through working landscapes (Randolph 2004).

John Randolph indicates green development through green buildings and holistic thinking including the combination of land protection, community values, and managing sprawl (2004). Smart Growth can be innovative in the design, renovation ideas, and incorporating key elements, such as discrete development centers, transit corridors, regional greenways and open spaces, and urban growth boundaries (Randolph 2004).

To ensure proper development and site choices, a comprehensive plan and zoning control measures are necessary. The plan should incorporate a management plan using regulatory and nonregulatory tools, and policy instruments to achieve appropriate growth and development (Randolph 2004; Roseland 2005). Through zoning, growth can be controlled, the environment can be protected, and concurrent development will shift Vermont towards Smart Growth.

Images from Mark Roseland's book represent a landscape approach to cooperative urban blocks and vision of ingenuity (2005, p22-23). This approach to development will ensure natural resources, recreational opportunities and encourage green jobs and businesses. Through Roseland's work, he indicates the importance of participation from citizens in the collaboration of the framework, regulation, and organization for sustainability (2005, p26-27).

More so, education is critical to the future of sustainable development for Vermont. According to Roseland, "movement toward sustainable communities requires a new kind of ecosystem thinking about human settlement" (2005, p20). Reiterated through discussions in class, recognition of all players and sectors involved in community expansion begins the process of integrating multiple areas in education, which would incorporate business and economics with ecological, agricultural, and cultural pieces.

Academia focused, education should be experiential for primary education to instill in their moldable minds the importance and richness of Vermont heritage, tradition, and pride. Urban to rural education would incorporate hands-on experience of farming, conservation and wildlife, and activities promoting the responsibility of Vermonters.

Additionally, education of young adults, particularly college and graduate students, with these ideals will promote the youth to stay within the state and contribute to sustaining the culture and economic development. Such encouragement can be emphasized through increasing human, social, and cultural capital because together they strengthen the knowledge-base needed for sustainable community development. These capitals focuses on education, literacy, family and community cohesion, strengthening organization, capacity-building, and collaborative efforts as well as traditions and values of Vermont (Roseland 2005, p12).

The benefit of utilizing novel approaches to education through experience and stressing the values current residents feel is important to the curriculum of both primary and secondary education; the youth are more likely to stay as well as creating the capacity for future jobs and opportunities for sustainable development in the state if they feel a strong connection and sense of commitment or responsibility.

Education also can promote further improvements in efficiency, usage, and types of renewable energy. With the increasing concern for urban and rural sprawl expressed by Vermonters in the Livable Landscape documentary, the concept of ecological footprint, environmental degradation and depletion, and externality are becoming common terminology. Currently, “urban sprawl is one legacy of abundant fossil fuel and our perceived right to unrestricted use of the private car whatever the social costs and externalities” (Roseland 2005, p19). Thus, as Mark Roseland relates, “expenditure on educating the public is a valuable tool – if people know that their behavior is socially or environmentally harmful, they may change it” (2005, p34).

Change is the fundamental stepping-stones for Vermont’s transition to sustainable development. As depicted through group discussions, the uses of renewable energy in industrial production, promotion of technologies like the solar panel, and recycling and composting reinforced and emphasized promotes sustainable energy. Through policy instrument Roseland suggests, both public and industrial areas are addressed; therefore, the government can discourage and encourage behaviors or activities (2005, p32-34). For instance, using laws requiring licenses or permits for certain activities can limit particular energy usage, like disincentives for fossil fuel usage, as part of sustainable development.

Furthermore, standards and economics incentives (i.e. tax cuts) can require ecologically conscious, and efficient, best available technologies to reduce the impact of emissions. Reduction in waste and consumption must also be considered to sustain the resources available to present day populations, and populations of the future. To help assist this pressure, non-profit organizations, grassroots, and social groups can further influence and push for sustainability, efficient technologies and products with an environmental consideration. In the reading by Andrew Savage *et al.* called “The Greening of Social Capital: An Examination of Land-Based Groups in Two Vermont Counties,” Vermont has gained in its environmental groups and organization over the past 15 years.

Together, governmental and NGOs can promote the needed incentives and pressures to direct development towards reducing ecological degradation, whether through emissions or waste, and sustainability. In order to engrave the importance of holistic consideration of social, natural, and economical areas, the education system must include hands-on opportunities to create the value and importance of the culture and beauty of Vermont.

Thus, through education the youth are exposed to the pride and traditions of the state, which will lead to community dialogues and participation directed toward new sense of development: one that incorporates coexistence with the natural world and renovation of existing infrastructure. Ultimately, sustainable development in Vermont looks like Smart Growth and multidisciplinary field of education focused on capturing the true values and traditions of Vermont, meanwhile creating green jobs and economic progression.

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Student Essay#19

Sustainable development in Vermont is mentioned in class discussions and in the documentary entitled, "Livable Landscape." In the documentary, Urban Sprawl is seen as a problem for sustainability in the state of Vermont. Urban Sprawl occurs when resource economies convert to a more urban way of living.

With urban sprawl comes more railroads, roads, and industrial corporations. Problems are created by sprawl and should be avoided. "Other local and regional consequences of sprawl, such as congestion, air pollution, job-housing location "imbalance," and longer commuting times are now commonly recognized" (Roseland 19). With fewer sprawls in Vermont, improvements in sustainable development will increase. Beside urban Sprawl increasing in Vermont, other sustainable developments are found in Vermont today. The current sustainable developments of Vermont were discussed in a class discussion.

To begin with, we will discuss the education of Vermont's citizens in relation to sustainable development. It is equal for all people who live in Vermont. The education covers common agriculture and cultural knowledge as well. With more knowledge about Vermont being spread throughout the state, Vermont appears to be sustainable in its development. For example, more agricultural based schools in Vermont could increase sustainability statewide.

In terms of Vermont's land-use planning, there could be a more sustainable way of controlling zoning in Vermont. For example, a Greenbelt system should be developed to promote sustainable growth in Vermont. The energy being used in Vermont is mainly focused on transportation. This focus hopes to create a more sustainable way of developing Vermont in terms of how one gets around. For example, an increase in public transport would make getting around Vermont

more sustainable. With more transportation that is public comes less cars and creates a more sustainable way of getting around Vermont.

Housing and properties in Vermont are being built so that they are more affordable in Vermont. This attracts more people to Vermont. The more people in Vermont leads to a more sustainable way of living. Vermont citizens do not have statewide insurance. Vermont should have statewide insurance. Currently Vermont's citizen's insurances, basic needs, and safety are only looked at in small areas. This should be done statewide to make Vermont more sustainable. The more insurance shows concern for the people by the state of Vermont. It increases sustainability.

Vermont focuses on non-renewable resources. Vermont should be less focused the non-renewable resources and more focus on those that can be re used. For example, if Petroleum were replaced with sunlight as fuel then fewer resources would be wasted. This would put Vermont's development in more of a sustainable category.

Vermont local recycling should be made more statewide. For example, instead of requiring recycling in Rutland, there would be a recycling requirement that would be applied to the state. This would just improve the sustainability of Vermont.

As we can see, the sustainable development of Vermont appears to be improving. There is still time to make Vermont more sustainable. I hope that with the new insights and ideas developing everyday, Vermont will find a perfect sustainable way of developing.

Sources

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Student Essay#2 I

Particularly in the past decade there has been a noticeable increase in individual state-wide discussion on how to become leaders in sustainability. In a time when nation wide action is not happening across many sectors linked to the sustainability of communities, a handful of individual states are bringing forth their ideas and initiatives to make this happen.

Author of the book, *Toward Sustainable Communities*," Mark Roseland begins to explore what it is that many citizens are or want to work towards. He claims that people want to "improve quality of community life, protect the environment, and participate in decisions that affect us; concern about poverty and other social condition... a sense of satisfaction that money can't buy; and pride in the legacy left for our children" (Roseland, 2). All of these aspects are common shared values and concerns along with many others that citizens in the state of Vermont possess.

These ideas that Roseland sets forth are just some of the few that Vermont will need to critically analyze and improve upon in order to sustain a quality of life for all its inhabitants. This paper will begin to explore some ideas, suggestions and a

mental picture, based off of Roseland's work and some others to discuss what needs to happen in order for Vermont to reach a level of sustainable satisfaction.

The state of Vermont will need to look at a variety of capital sectors proposed by Roseland that I believe will help improve the state at many levels. The first being natural capital, or natural assets that provide a flow of valuable goods and services presently and into the future. One major aspect of natural capital would be the environment, this includes non-renewables, renewable resources and the state's (and world's) capacity to absorb pollution and produce renewables sustainably.

As a state, we need to preserve and improve already intact systems and structures, maintain biodiversity in natural resources, and rethink the initial design and implementation of new infrastructures. These infrastructures could be, but are not limited to; new building, housing developments, zoning, and industries across the state. By using sustainable design techniques from the beginning, it will lead to new jobs (preferably green ones), supporting the local economy, and economic savings down the line.

This natural capital consists also of energy used throughout the state, which I feel needs to be heavily assessed in order to achieve sustainability through Vermont. We need to stop supporting energy sources and plants that outsource money and resources outside of the state in which they are made and located, we need to stop relying on other means of energy that are imported and compromise our environment, economy and health and instead need to become a leader in energy independence through successful renewable sources such as wind and passive solar. These new energy technologies will not only improve our local economy by providing new and more jobs that are reliable, but will also improve the quality of other natural resources in the state, such as air, water and land.

Another capital sector that Roseland discusses in his book is a social and human capital. These are both tightly linked and delve into many issues. The human aspect entails many topics such as; health, education, nutrition, and family and community cohesion. The social aspect is more along the lines of what holds communities together; traditions, culture, shared knowledge and understandings throughout the citizens of Vermont.

All of these issues, including those of the natural capital are all alike in the simplest way that they all affect another. It is easy to see each community or state topic that we need to focus on to improve quality of life in Vermont, but at times we as humans tend to forget how closely linked all the strengths and weaknesses of each one are. For example, which ties into the social and human capitalist idea, if we do not begin to improve the education system and begin to integrate environmental education into this system than we will continue to degrade and become more desensitized to the natural and ecological world with each generation which will also degrade the benefits these resources bring to us as humans.

If we provide local energy and local jobs for our citizens and our economy it will begin to increase the amount of affordable housing available. This in turn can begin to eliminate poverty which in turn could result in less recruitment by the military to send citizens of Vermont to the Iraq War. The Iraq War which has now cost each Vermont household \$36, 900 due to all of these things; lack of increase of jobs, increase in heat and gas, increase in health care affordability, and education cuts (jec.senate.gov/state/vt). By ending support to such a war could improve the

amount of affordable higher education, and invest more into the conservation of our natural resources and not to mention the beauty and landscapes of Vermont that we all love.

Speaking of the beautiful landscapes, the state of Vermont needs to continue to keep up with the tourism industry. Currently 12% of jobs in Vermont are linked to the tourist industry, which in 2005 alone raked in 1.57 billion dollars to the state (uvm.edu/tourism/research). The Department of Tourism and Marketing has done an excellent job in continuing to foster the culture and tradition of Vermont within the state and shown them to the world, such as dairy farming, maple syrup industry and skiing. This is an area we are doing well on and need to continue to do in order to financially maintain sustainability state wide.

Now I feel that I should discuss what “communities” could consist as far as making policies and improvements to the state of Vermont. I believe that communities, should determine, based on a consensus policies that govern them best, that are then sent to the state level for review and approval. But I believe that these communities should have the most influential voice in the state decision making process in order to achieve democratic sustainability. Now a question of what constitutes a community for the future of Vermont. Well I believe it depends on the situation.

If it is an environmental issue at stake, than perhaps the parties involved should be representatives from each watershed or bioregion of the state along with state protection agencies. As for education issues, perhaps school or country school districts collaboratively working together to make the education equal, available and affordable state wide. These are a few examples and it will truly depend on the issue, but this grouping of communities will not only foster stronger communication, but keep community traditions already in place alive and improving.

As one can see, just based on my thoughts along there is a lot that needs to be looked at and improved on for the state of Vermont. All of these areas are what I feel Vermont needs in order to improve the quality of life through sustainable development for years and generations to come. Now we just need to continue to mobilize the citizens of the state and get their concerns heard!

Student Essay#22

Sustainability in Vermont includes a few different things. First, the Economic then Social and environmental synthesis is needed. Land and housing is one of the first issues we need to discuss. As we saw in the movie urban sprawl is an issue in Vermont. People are spreading their houses out in a way that is not sustainable friendly. People are sprawling out and making it so there is no more open land for farming or other land use. Instead, Vermont needs to look at how they can start creating creative development. In the book Towards Sustainable Communities it shows ways that housing can be set up in a way that the whole community can benefit.

One is called an urban cooperative block and its like a village cluster and it is set up in a way that the whole community can benefit parking, housing and yards. This goes along with the idea we came up with in class, about land use planning and how there should be zoning control on how land should be used. Another

important idea about Vermont's sustainability is having clusters of industries collaborating together in order for them to work off of each other and help each other. The communications infrastructure also needs to be up to date and this includes high speed Internet. Making it easy for Vermonters to access the Internet and be able to easily learn more and become educated is essential.

The next idea that involves the sustainability of Vermont is the social aspect. First and most importantly is education. Education of sustainability and providing activities to promote active citizenship or things about common culture is very important. In class we talked about how we could do this by having standards for teachers to test or teach certain things in school about sustainability. Another thing is dealing with poverty and making things affordable statewide. Things that could be made affordable statewide could include insurance, health care and basic needs. Increasing public transportation is important for the sustainability of Vermont.

In the book it says how it is important for there to be a requirement of sustainability in transportation, energy, water and community economic development. Socially, in order for people to want to do that there might need to be incentives to do certain things. For example town meetings, if people are not attending maybe there can be an incentive, like the day off from work. There can also be other tax incentives to try to get the social whole to contribute in the sustainability of Vermont.

This goes on to the environmental aspect of sustainability in Vermont. There needs to be less of a dependence on nonrenewable energy sources. More power should come from wind or solar. In order to deal with waste there should be a statewide recycling and garbage program so waste can stay at a minimum. Another idea is preserving wild, open and wetland areas. These areas are essential for ecosystems and need to be protected from human development. Combination of Economic, Social and Environmental synthesis is necessary for Vermont's Sustainability.

Student Essay#23

Assuming that sustainable development is a useful concept which balances economic, social, and environmental interests, we must consider how it can be successfully applied to the state of Vermont. I believe that directed development can create intergenerational equity by meeting the needs of the present population without compromising the ability of future generations to meet their own needs. There are three main areas of concern which must be addressed, which include the wellbeing of society, the success and stability of the economy, and the preservation of the natural environment.

The needs of society are a major concern in planning sustainable development. The welfare of citizens is important because the success or failure of a community depends on it. "Social capital" is a term used to describe the "relationships, networks and norms that facilitate collective action" of a community" (Roseland 9). The strength and cooperation of a community is crucial in its ability to be successful. This requires adequate representation and active participation in local and state governance. Introducing children to service-learning is a good way to build strong communities and raise awareness of local problems. By making local forums such as town meetings more accessible and encouraging civic participation,

communities can democratically meet their needs and determine what is best for their society. Social capital cannot be created automatically, but is grown through personal bonds and community involvement

Vermont is a relatively healthy and safe place to live, but there are still several social issues which need to be addressed and many areas for improvement. Vermont faces the problem of poverty in both urban and rural areas. Affordable housing is not readily available, and the cost of living far exceeds minimum wages. Sustainable community planning makes living more affordable by condensing unused space and sharing common resources. The access to proper nutrition and healthy food is also a concern for many people. Supporting local farms is an environmentally friendly way to eat healthier and strengthen the community economically. The education system in Vermont is relatively good, but changes can be made to better prepare young people for future challenges.

Integrating more environmental education into curriculums is one solution. The stratification of age in Vermont's population is also a concern because there is a large percentage of older citizens. Providing adequate healthcare will be difficult. Vermont also has a strong sense of identity, which includes the picturesque, small agricultural town image, as well as its pristine natural environment. Many Vermonters wish to maintain this identity, and development or change is sometimes fiercely rejected if it compromises this ideal. These concerns are extremely important to the future of Vermont.

A second major area for concern is the economic interests of the state. Communities cannot survive without a stable and productive economy. The term "economic capital" is used to describe "the ways we allocate resources and make decisions about our material lives" (Roseland 8). A sustainable community is one that is able to live off of finite resources without leaving less behind for future generations. This means there is a great need for innovation. Existing resources must be used more efficiently, capital must be retained in the local economy, and new jobs must be created.

The economic vitality of Vermont has greatly declined over the years. Cheaper imports have put a strain on many local industries, and small businesses have been pushed out of business by much larger competitors. A great deal of the money spent in Vermont goes to other states or countries. However, local cooperatives are one way to make local products more available. Because of a shortage of skilled job opportunities in Vermont, many young people who receive secondary education in the state leave to find work. There needs to be new development which will stimulate the economy of Vermont which fosters the ideal that it must also support the social and environmental wellbeing of the state as well.

One solution to bringing sustainable development to Vermont is the creation of new sustainable industries. If the state invested in new technologies, especially green technology, Vermont could become a center for sustainable development. By creating new "eco-industrial parks", where a cluster of collaborating businesses could help one another advance, we could utilize resources more efficiently. These businesses could provide competitive jobs in the area without compromising the natural environment in the way that most industrialization does.

The third consideration of development is the preservation of the environment and sustainable use of natural resources. Our current developmental practices encourage continual growth on a finite planet. We have come to realize that in order for future generations to sustain themselves, we must limit our consumption of resources and preserve the natural systems that support life on the Earth. Such usable assets are known as “natural capital”.

Vermont is known to be progressive in its efforts to protect the natural environmental, and is a relatively clean and undeveloped state. However, there are many ways which Vermont can better meet the needs of the environment. There are still issues surrounding the use of nonrenewable energy, which is a major concern worldwide. Investment in renewable energy sources such as wind and solar power by the state would greatly reduce our dependence upon foreign non-renewable fuels. Global warming is also a serious threat to the global community, and Vermont’s natural resource-based income can be greatly affected by climate change.

Local farms are some of the businesses at risk. They are a better alternative to importing industrially-produced food, which wastes fossil fuels and takes money from the local economy. They also create a bond within communities and improve the health of the public. There are still many changes to state and local policy which can improve environmental standards and address issues such as water pollution and rural sprawl. Vermont can focus its land use policies and zoning laws to allow for better public transportation and wildlife preservation.

Although some of the problems the state faces are daunting and incredibly difficult to fix, there are many viable solutions which can help Vermont create and maintain more sustainable development. When planning for the future, we need to take a holistic approach to ensure that development does not negatively impact the social, economic, or natural capital of the state as well as the rest of the world. By taking the viewpoint of sustainable development, we can see that these three concerns are ultimately connected and totally dependant upon one another.

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Student Essay#24

Vermont is an especially unique state when it comes to being green and sustainable. There are many projects and ideas being implemented, such as cow power, in hopes to create more sustainable and environmentally friendly communities. I feel that all of these efforts are positive for Vermont, but there are several other issues I feel should be addressed in order to create sustainable development in Vermont.

One vision of sustainable development I have for Vermont is managing the existing natural resources. What is meant by this is that we need to not exploit fisheries, game, forests, wetlands, etc. The way that this can be accomplished is by keeping track of, for example, the amount of fish or trees available and making sure that these resources are not harvested at a rate that exceeds the rate they are able to replenish themselves.

Going along with this idea of managing natural resources, I feel the concept of creative development needs to be adopted, which was discussed in the book Towards Sustainable Communities. The idea behind this concept involves developing communities that are grouped together more closely instead of sprawling them out. This will allow for more of the natural land to be available for traditional Vermont activities such as farming and agriculture.

Another vision I have for Vermont is better availability of public transportation. I feel if communities started adopting the creative development concept it would make it easier for public transportation to become more available. The reason I feel this is true is that there wouldn't be as much ground to cover if people were clustered in certain regions of the state. The public transportation services wouldn't have to travel as far to meet the needs of most residents which would make it more feasible for them. Ideally, all of these public transportation services would be run of renewable resources.

I also envision more support of the local economy. This would entail purchasing produce from local farmers markets, buying wood from a local lumber company, and cheese from a local dairy farmer. Basically the goal would be to try and keep as much money in the state as possible.

A couple other ideas I have, but can't quite envision, are improved waste management and recycling facilities and more education and awareness of all the issues that Vermonters face. One way to promote awareness is through schooling. There should be a section added to schools curriculums that address the issue of sustainability and what can be done to develop sustainable communities. The part that is hard for me to envision is getting the older generation more aware and supportive of these issues.

Most of the youth enrolled in Vermont schools end up leaving the state at some point or another, so it doesn't do Vermont much good if we educate them and then they take their knowledge and apply to some other region of the country. Also, there are a significant number of older people that move to Vermont from other regions, for whatever reason, that might not have been educated about these issues, and need to be if they are going to contribute to the sustainable development of Vermont.

Student Essay#25

In a society where shopping and consumerism has replaced active citizenship and international dependency is at an all-time high, Vermont holds some unique advantages in the social realization of sustainable development as a viable system for creating economic, social, and environmental equity. From active institutions of higher learning to a thriving tourism industry and a plethora of land-based citizen organizations, the state holds increasing potential in defining sustainable development standards and achieving sustainable communities. In order for these things to become full realities, Vermont must face one of its most pressing concerns in its deficiency of human capital.

To frame this is the context of the Vermont Community Foundation's "Understand Vermont" report, there are basic human needs which need to be established to develop and garner the budding citizen in every community member. While these are generally good, Vermont is caught in the conundrum of

country-born natives flocking out of state to cities where there is adequate work coupled with city-born “flatlanders” looking for the ideal country life moving in and creating sprawl.

There needs to be some consistency in who is living in Vermont. Education, food, shelter, employment and other necessities will not seem like good investments if natives are growing up and emigrating to more populous areas and those that are moving in are only staying temporarily or are suburbanizing Vermont’s cities. Retention of a more youthful populace who have a nested state identity and a commitment to local heritage will ensure steady funding for development and maintenance of the education system, which will in turn produce more skilled workers, which will increase human capital, which will then attract employers, which will further the economy’s capacity for a sustainable future.

What Vermont lacks in human capital, it makes up for in social capital. This is the first step in ascertaining successful communities. The limited population size of the state has few downsides outside of national representation. It facilitates smoother communication, more community cohesion and a stronger sense of social responsibility. With roughly two-hundred-thirty-seven land-based active community organizations, Vermont’s social capital, especially in terms of the environment, is ever-increasing and exists to influence state-level policies. What’s better is that these environmental groups are mostly autonomous, which provides for more locally active members and parties to the organization.

Historically, chapters of organizations are less active locally, as they exist on a state or national level and membership is primarily donation-based. Having local, self-governing, sovereign organizations provides other organizations with opportunities to network freely and build alliances to strengthen the active civic system within and amongst Vermont’s six distinct geographic regions. Boasting these inter-community connections allows for wider consensus in creating sustainability-oriented policy to implement more creative use of urban areas and employ smart growth techniques in areas of development where sprawl threatens.

Already, policy instruments are being applied statewide to increase stakeholder participation and ensure sustainable communities. Industry is inundated with regulations like licenses, permits and standards, as well as expenditures like investment and procurement programs for the development of such things as renewable energies. The general public is offered financial incentives such as grants, loans, rebates and tax breaks for buying into sustainable industries. As well, Vermont’s unique industries further facilitate an enriched social dedication to cultural heritage and provide infrastructure for a distinctively supportive system of smart development.

Ideally, sustainable development in Vermont will work through the local land-based organizations in a bottom-up fashion to establish social equity or redistribution, that all citizens share the benefits and costs of attaining sustainable communities equally, rather than in a trickle-down manner. Meshing the inimitable granite, marble, maple syrup and dairy industries of the state with the overarching institution of statewide tourism will provide Vermont with a sense of economic self reliance. Increasing public participation will pressure policymakers to alleviate the effects of suburban sprawl and help develop concentrated smart-

growth systems, patched together with public transportation and agricultural and natural lands.

Tapping into the throng of college institutions in the state will increasingly expand the social, economic, technical, and environmental reach of sustainable energies and further perpetuate Vermont as *the* green state. As well, establishing what local the communities desire, and harmonizing that with statewide standards will build trust in the local organizations and gain them a crucial part in creating a long-term monitoring system for maintaining a sustainable state community grounded in distinctive industries and their commitment to harboring cultural tradition.

Student Essay#26

The future is wide open. The possibilities from today to tomorrow are endless and a sustainable Vermont is in the cards. What is a sustainable Vermont though? Sustainable development is merely a term to direct people in a certain direction and from there it is up to each individual to envision what it means to them. To me, a sustainable Vermont would incorporate the well-being of the people both in physical health and financially and it would incorporate the well-being of place both in the realms of human society and in the realms of animal society. This sets up a demanding set of criteria for Vermont to meet, but each element, each step, holds importance all of its own.

There are two specific elements I envision in a sustainable Vermont. The first takes a look at all of the clusters of industries we have in this state. Some of the clusters are Maple syrup harvesting, outdoor activities, dairy farming, beer brewing and logging. Within each of these clusters there should arise great communication. Each industry should collaborate to set standards to support the industry. These standards would help preserve the livelihood of the state which is based upon its many clusters, it would help the economic stability of many individuals and if formulated in a sustainable manner, would also assure that the techniques of operation within each cluster are as environmentally friendly as possible.

One of the industries in particular would greatly benefit right now from participants coming together and developing ways to help support the industry and thus each other. This industry is the Maple syrup industry as climates are changing and the amount of Maple syrup harvested in Vermont is lessening and increasing in Canada. Because it's a climate change issue, perhaps there are limits to what can be done, but that is the importance of having a group come together: to figure out what can be done.

The second element for a sustainable Vermont is one of education. In this element kids would be taught about the environment. They would thus learn about nature in general and about environmental issues and solutions. They would be taught what they can do to make a difference right now, even if it is simply placing a can in a recycle bin rather than a garbage can. Kids would also be taught about what comprises of the local economic environment. They would learn about the clusters of industries that exist: the vitality of their state.

Anything is better learned when it transitions from just being heard to actually being hands on, especially with kids. Therefore, at varying points in their education kids would be taken into the natural environment to observe what they learn in class and then in high school, they would be required to pick an industry and do a

certain number of hours in it. This second experience would connect them with a member of an industry that could become a positive peer for them, it would give them the chance to participate in a cluster of their state culture and to better understand the actual process and existence of their state's economic elements.

These are only two elements for a sustainable Vermont from a list that is as endless as the possibilities from today to tomorrow. The realization that there is not just a quick fix should not bring enthusiasm down, but instead should raise hope for the future because no matter what we do, we will not hit a dead end in our pursuits because there is always some fashion of another step to be taken.

Student Essay#27

Vermont, like most of New England, has a very distinct character that has actually become a major contributing factor to its economic and social viability. The Vermont culture is unique and should be maintained during any development. In fact, the Green Mountain State's culture offers more opportunity to develop sustainably than other states'.

The rural landscape that lures visitors to the North is capable of moving in a more sustainable direction if planning is taken seriously.

Currently, the majority of Vermont land is rural which is attractive to developers who wish to build homes and stores wherever possible. Although this may seem like a vulnerability to unsustainable development, proper planning will allow for development without compromising the integrity of the landscape or culture.

As communities experience an increase in residents, housing should be confined to specific areas where they can share civic services and community resources. Areas of concentrated housing facilities must be infused with commercial and retail establishments, allowing residents to live within close proximity of their workplace reducing the daily commute and demand for personal vehicles. Those who live on the outskirts of this concentrated housing/commercial zone may still commute, either using public transit or carpooling with personal vehicles.

Muscle-powered transportation (walking, bicycling, etc) within communities is encouraged whenever possible and carpooling is mandatory if personal vehicles are used for travel within the community. Local policies require that offenders pay a transportation fee that helps fund public transportation systems. Motorized transportation between communities is permitted but local governments encourage citizens to voluntarily carpool or use muscle-powered transportation.

An electric-powered train serves as the most practical form of intercommunity travel. These operate on electricity derived from renewable sources, stopping at convenient locations each hour. Trolleys and buses also make stops within communities for use during unpleasant weather and those who may have difficulty walking. All public transportation vehicles have bicycle racks to further encourage non-motorized transportation.

Each community must be surrounded by a greenbelt with agricultural plots large enough to sufficiently feed all community members. Because greenbelts are shared by adjacent communities, town officials must collaborate to ensure the security of local foods in their markets. Each greenbelt must consist of enough woodland to support the timber demand in adjacent communities. Selective

forestry methods are mandated so that timber is not harvested more rapidly than the forest's ability to replenish itself. Residential and commercial development is prohibited within a greenbelt; these areas are meant to serve as natural resource banks in which communities invest. When allocating space for agriculture and greenbelts, ecology experts should be consulted so as to avoid interfering with animal migratory patterns.

Agricultural lands within the greenbelt are to be kept free of all chemicals to ensure a healthy biosphere, including human consumers. No crop or livestock may be subject to pesticide, herbicide, growth hormone, antibiotic, or laboratory-designed genetic mutation. Work animals such as oxen are used in farm operations, eliminating the need for motorized tractors and other equipment.

Greenhouses produce fresh produce all year long, supplying the surrounding communities with as much locally sourced food as possible. Most food will only be available seasonally and markets will import as little foreign food as possible. Farm operations are required to compost any waste products, while accepting compostable waste from local communities. Communities members are strongly encouraged to bring their compostable waste to local farms because of the improved crop yield that may result (it is in their enlightened self-interest).

All wastes, compostable or not, are to be minimized as much as possible. This means the industries must reclaim by-products and design products with an end-of-life plan. When people no longer need a product, they donate it to thrift or free stores where others may access them. When products are no longer usable they are collected by their manufacturers, broken down into raw materials, and processed into new products.

The energy used to fuel public transportation is often derived from wastes, too! Gases released in landfills and compost piles are captured to power public buses. Energy for electricity and heating must be from renewable sources such as the sun, wind, or flowing water. All residences and commercial establishments are equipped with the best available renewable energy technology in efforts to reduce energy demand from the grid.

Student Essay#28

I think that the future of sustainable development in VT is centered in the achievement of five core goals. I think the future sustainable Vermont would incorporate cleaner energy solutions, stronger conservative land efforts, corporate cooperation efforts, an increase in environmental education, and an increase in support of the local economy.

Some of the prospective renewable energy solutions include both wind and solar energy. Vermont is fortunate to have many ridgelines that receive a reasonable amount of wind that could potentially be harnessed and used to power local homes and businesses. Additionally solar power could be used both in commercial and residential situations. If the state government offered more incentives and financial aid to help families harness solar energy in their homes, we could reduce utility costs for many families statewide. They could use the solar energy in radiant floor heat systems as well as to heat their water. In urban areas solar panels could be installed on the top of buildings to help supplement the electricity needs.

A sustainable Vermont would also focus efforts on increasing the land conservation and preservation with more open space acts and development limits both in urban and rural areas. Open space has always been valued in Vermont and maintaining the sense of a quiet, natural landscape should be continued in the future.

Corporate development is inevitable in America, and fighting it can be both costly and a waste of time and effort. To cooperate with the corporations, Vermont needs to develop organized strategies regarding development that will benefit both parties. A good example is the cooperation between Wal-Mart and the city of Rutland. The Mayor of Rutland decided that Wal-Mart could help bring the people back to the downtown area, but that the area also needed a park for both aesthetic reasons and recreational purposes. He bargained with Wal-Mart to have them build in a specific location that would benefit the town as well as having them fund a park in the downtown area. Since then the people have returned, and the downtown has flourished.

Above all, the most important part of a sustainable future for Vermont is the continuing education, particularly in youth, of pressing environmental issues. The earlier we start teaching our children about the importance of sustainable development, the more likely they are to care about the issues in their adulthood. These children are more likely to become active members of the community, and will feel a greater sense of connection to their home state.

This sense of connection can also be maintained by supporting the local economy. A sustainable Vermont would have farmers markets in every town, where the townspeople can enjoy fresh locally grown produce and other goods. There would be craft fairs and other various gatherings where local goods are bought and sold. This would be the heartbeat of a thriving community benefiting all involved.

I feel that the future of a sustainable Vermont will incorporate these five goals and elements.

Student Essay#29

In able to understand what does Sustainable Development look like in Vermont I feel important to define what sustainable development is. For me, sustainable development is the development of a society meeting all the basic needs for everyone without affecting the ability of other generations to do the same. Hence, if I were to set guidelines of how I saw a sustainable Vermont I would start by defining the basic needs for all stakeholders that live in the area in the present and how would they live in a way that doesn't affect the ability of future generations.

The stakeholders I see to be considered are the environment, the economy, the people, and the government. Each stakeholder has different aspect to be analyzed for example people have the aspects of education, health, access to shelter, food, and jobs. For the education aspect it would start by providing free access for all children to quality levels of education that compete with international levels, and take into consideration their local environment and community.

Education based on sustainability practices to not educate children to become compulsive consumers but informed consumers. This is done by creating a

connection between how the local economies and people live and survive in the area and how they will fit in that scheme. Also, by creating a sense of belonging to that area this helps guarantee that people stay in the area where they were raised and maintain the area with new generations.

On the health aspect the creation of a health system that is aided by the government in a way that it is accessible to all residents of the area. Creating programs that help people from all economic levels to have access to medical care when needed in accordance with their income, debt, and responsibilities ratio. Most importantly a guaranteed free service for prenatal and child survival care, these include dental, mental and physical health.

Access to shelter and food has to be guaranteed to all residents by creating strong shelter services, programs for non-discriminatory housing aid, and development of programs that are dedicated to helping people achieve enough economic stability and personal finance management to have access to a livable (heat, electricity, and enough space for all members) place to live in.

For food; strengthen the food shelf centers and creating a network between them so that they can aid each other by transporting food from one place to the other based on need. Quality, locally, and organically grown and produce food should be available in all schools for children with programs that price food based on the child's family income having a selling price and aid for children in low income families. Impose taxes on foods that are unhealthy, non-organic, and non-local to create an incentive to buy local organic food.

Finally, strengthen unemployment services; that include services of education and creating a program free for companies that reports all open positions in companies and centralizes them so that all unemployed people have free access to all jobs available in the area that are fit for them. Also, increasing minimum wages to a livable wage in the area.

Connected to people is the economy, allowing industries to act on their own has demonstrated problems in the past. First, even though economic growth is important and it comes with development it should be restricted by the environment as a stakeholder. This includes land use policy; "recycle" already used land, stimulation for job creation by local companies that require highly qualified people as well as basic level trained. Implementing protectionist strategies for the labor force as well as for the micro business and starting businesses survivable. Efficient energy policies that come from the usage of renewable sources or/and by closing the cycle of waste = food.

As a restriction of the economy comes the environment as a stakeholder. Guaranteeing a protection and conservation of pristine wildlife areas, control of species to guarantee species survival, and ecosystem sustainability. Most importantly is seen humans as part of the environment and not the environment as a resource. Establishing laws for sustainable agriculture that helps the protection of wildlife and no introduction of chemicals in the soil.

Last but not least, the one stakeholder that keeps the control and balance is the government for it is able to regulate and make sure that the above mentioned practices are being followed playing a key and active role in a society but more as a mediator between people than an enforcer. Communities need to work together

to create a system in the best interest of all in the present and the future. Taken the interest of all stakeholders and using the government as a mediator between communities, not an enforcers of concepts of one community over the other one. This creates a more reliable involved government that works with the people, for the people and from the people.

Student Essay#3 I

Sustainability in Vermont is a very important issue which has been recently addressed. First off, Sustainable Development means as defined by the Brundtland Commission (1987) is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". In other words sustainable technologies protect the environment which in turn ensures the success of later generations in a healthy planet. Vermont is one of the states in the United States which is leading this change however the question is, will sustainable development remain a useful concept?

Montpelier Vermont is a perfect example of sustainable development. "One hundred and fifty Montpelier citizens turned out to start the City of Montpelier down a path of changing its energy future. Confronted by a combination of economic and environmental realities, the group arrived at an exciting list of possible actions to pursue. At least 12 teams will continue working to improve energy options, expand availability of alternative energy supplies and reduce the overall use of fossil fuels in the City. All of this occurred as the City of Montpelier held the first of what may be a series of "Town Meetings" on March 5" (City of Montpelier – Sustainability).

The VBSR (Vermont Business for Social Responsibility) is an active supporter of sustainability in Vermont while being based in the capital. VBSR works actively to influence public policy in Montpelier. "Their full-time lobbyist (the Public Policy Coordinator) works with members, legislators, coalition partners and government officials on issues of interest to small and large business". Typically they work to improve: Workplace quality, environmental quality, energy security, and sustainable economic development.

Their mission is to foster a business ethic in Vermont that recognizes the opportunity and responsibility of the business community to set a high standard for protecting the natural, human, and economic environments of our citizens. "Vermont Businesses for Social Responsibility (VBSR) is a non-profit, statewide business trade organization. Our members are businesses and organizations who recognize that the need to make a profit and the need to make a difference are not in conflict, and who use the power of business to change the world".

Many organizations strive on sustainable development. They realize about the economic benefits and change with the hope of better business. When people see that companies are using sustainable technologies, they get more economic returns in the long run. People would imagine that the company supports a cleaner environment by doing so. That's when the VBSR once again comes into play. "Over 650 businesses representing all sectors of the Vermont economy belong to VBSR. Collectively they employ more than 35,000 people and account for \$4.0 billion in annual sales". Clearly the VBSR is the center point for Vermont business. Green Mountain College is also a member of the VBSR. Overall, Vermont is a very sustainable state. Vermonters take pride in their sustainability

and help to the environment. They also believe in renewable technologies such as wind and solar. Vermont is leading the pack for a sustainable economic future and there is not much stopping it from their success as a state, and as an environmental leader.

Student Essay#32

Vermont as a state is very forward thinking. This state is moving towards more sustainable development, but to do that we must first conceptualize what sustainable development in Vermont would actually look like. To get successful sustainable development in Vermont in the future, we need to start now, and we should look to our youth for major help in this complicated process. If sustainable ways of thinking are taught in our youth now, the transition to more sustainable communities will be accepted later. This would be a part of developing our social capital.

Ways to get youth thinking about sustainability and the environment may be by bringing children back to nature with after school programs and more environmentally focused classes. This would create more jobs because children would need more teachers and people who would work with youth to do nature programs and environmental activism. Young people need to become actively involved. By making the Vermont population think more sustainably, Vermont will be more willing to make the necessary changes when the time comes.

One of the necessary changes that need to happen is a decrease in consumption as well as wastes. Ways to do this may include creating more centralized living areas for people, with expanses of nature around them. This would make public transportation easier to increase and also the amount of places people could get to by walking or on bicycles, therefore decreasing fuel use, their carbon footprints, and increasing exercise habits.

Oil dependence can also be decreased by actively converting old power sources into renewable energies, creating new innovative jobs in the renewable energy field, thereby enticing young professionals to move into the state. Decreasing consumption could also include increased efforts to get people to buy only local goods. Community gardens could also help by creating a social area for people to connect with the earth, teaching people to care, as well as providing local food for the community.

Ways to decrease waste would be to convert our wetlands into water purifiers to help take care of municipal wastes. This would not only give economic reasons for preserving the last of Vermont's wetlands, but it would also create a less energy dependent way to purify water. Increasing the amount of recycling facilities in Vermont would also help reduce wastes.

This could be done by educating the public on how to recycle and making recycling more convenient. Expanding products that are recyclable so that more things can be reused and getting local businesses to use recycled products to create their goods. Incentives from the government would probably have to be given to get something like that going because getting people to agree to consume less may be one of the hardest parts.

To accomplish all of these things a good communication infrastructure may be needed. This can come in multiple forms, such as more community meetings to statewide high-speed internet. There needs to be forums where different parties can talk to each other easily on certain issues with ways for other community members to tune in. With community awareness, for example, businesses that aren't running sustainably can be pressured to do so. With better communication the needs of the community will be better serviced.

Through all of these changes the culture of Vermont should be maintained. The New England states do have a taste of their own and it would be a tragedy to see lost. Events like the Maple Festival should be maintained and celebrated. Mixing sustainable development and traditions together would conserve and increase the pride that Vermonter's have in their state and will be a very important part of mobilizing communities into making sustainable development a reality in Vermont.