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SUNY Cortland Sustainability

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Tolstoy once wrote that “everyone thinks of changing the world, but no one thinks of changing himself” (Tolstoy). While many of us are somewhat conscious of the projected environmental crises that our world is facing, not everyone has made an effort to evaluate and change their own ways of living; leaving one to wonder if it is possible to avoid the catastrophes ahead of us. Deprived of both information and tools, many of us look the other way as we continue down our wasteful paths unaware or even worse, unconcerned, about what our choices mean to the generations to come. As we search to find the answers to a more sustainable life, who can we look to for guidance? Who is providing us with an example of the kinds of lives we should be living? For those at the State University of New York at Cortland, the answer may just lie at the top of our transcripts.

ACUPCC

In 2007, Erik Bitterbaum, the president of SUNY Cortland, made a commitment to among other things diminish greenhouse gas (GHG) emissions and improve energy efficiency on campus. In April he signed the ACUPCC, the American College and University Presidents’ Climate Commitment, a nationwide effort to reduce GHG emissions and encourage advancements in sustainability education and climate stabilization (JMZ Architects and Planners, P.C., 2008). By signing the commitment “SUNY Cortland has agreed to produce periodic

inventories of the campus's greenhouse gas emissions and to produce a Climate Action Plan laying out strategies and a time-line for eliminating those emissions" (Smith, Brice and The Climate Action Planning Committee, 2011). As of today, 672 colleges and universities nationwide have agreed to this commitment and this number is only expected to grow as colleges and universities realize their role as leaders in their communities (ACUPCC Steering Committee, 2007-2011).

Sustainability efforts on behalf of colleges and universities are vital because "the purchasing power alone of colleges and universities, as they demand more environmentally and socially responsible products and processes, can help move sustainability from its present niche markets to become the standard in product and process design" (Rowe, 2007). The ACUPCC began at an AASHE (described in the following section) conference in 2006 where twelve collegiate presidents decided to start the ACUPCC and soon thereafter encouraged other colleges and universities to join in their fight to make sustainability efforts a campus priority. Part of the ACUPCC involves calculating the college's carbon footprint and working together to decide how the college should reduce various wastes (ACUPCC Steering Committee, 2007-2011).

According to Timothy Slack, the Director of the Physical Plant Department, the wastes at SUNY Cortland are primarily a result of natural gas (for heating), electricity use, food services, and transportation (additional information on these wastes are detailed in the Climate Action Plan). Over the last few years at the college, committees have been working vigorously to identify and decide upon what plan would be most energy and cost effective for the college. Ideally, SUNY Cortland is looking for "payback" from these plan components within three years which means they want the measures they take to show results within that time period as opposed to say, a longer ten year payback (Slack, 2011).

AASHE and AASHE STARS

Founded in 2005, the Association for the Advancement of Sustainability in Higher Education (AASHE) was the “first professional higher education association for the campus sustainability community.” The AASHE evolved from the Education for Sustainability Western Network (ESF West) which like the AASHE provides sustainability resources and information. The association began as a dream to both organize and increase sustainability efforts on campuses locally and worldwide. Believing in a better world for all, AASHE provides resources, opportunities, and guidelines necessary for colleges, universities, and those both involved in and attending these schools to make more sustainable choices (AASHE Offices, 2005-2011). The Climate Action Plan states that the college utilizes AASHE as it provides “helpful guidance and useful case studies of best practices from other colleges and universities” (Smith, Brice and The Climate Action Planning Committee, 2011).

The Sustainability Tracking, Assessment & Rating System (STARS) is an outline that lays out effective ways to measure the sustainability performances of colleges and universities. SUNY Cortland used the AASHE STARS guidelines to configure their thorough and effective approach to sustainability efforts. STARS has four rating levels: Bronze, Silver, Gold, and Platinum which are assigned to colleges and universities upon a point system. Establishments can earn points in the categories of Education and Research, Operations and Planning, and Administration and Engagement. STARS also includes various incentives for improvements, shares useful information and practices, and uses efficient methods that allow for comparisons in improvements overtime. Not only is being a part of STARS beneficial for the environment but

being affiliated with the organization shows benefits in marketing and recruitment areas as well. (AASHE Offices, 2010).

SUNY Cortland

According to the Sustainability at SUNY Cortland webpage,

“SUNY Cortland is committed to reducing energy use, ending our contribution to the destruction of the environment, and the social injustice caused by uncontrolled climate change...this is a challenge of unprecedented size and scope. It means defining and developing a sustainable and just world for all of humanity. But like all grand commitments, it starts at home and grows little by little, one step at a time (SUNY Cortland, 2011).”

Determined to achieve carbon neutrality by 2050 at the latest, the college produced a Sustainability Master Plan that focuses on lowering GHG emissions and increasing strides in energy efficiency and performance. The plan contains six elements: energy and climate, transportation, natural systems, water, materials and resources, and community. While incorporating and considering the requirements of the SUNY Facilities Master Plan, the Sustainability Master Plan hopes to reduce overall energy output by 15 percent in the year 2017 (JMZ Architects and Planners, P.C. , 2008). According to the plan, “we [SUNY Cortland] have adopted the goal of an 85 to 95 percent reduction in greenhouse gas emissions by 2050 from the campus energy system and a goal of achieving 80 to 85 percent reductions in the campus’s total

overall emissions including those associated with food service (Smith, Brice and The Climate Action Planning Committee, 2011).

In order to accomplish these goals, SUNY Cortland has many ongoing and newly implemented projects that they run throughout the year which include community bikes, carpooling, recycling and more. These kinds of resources, as well as numerous other avenues (which will be discussed later), enable those at and surrounding the college to do their part in the local sustainability efforts. Even though many of the resources are geared towards the campus itself, they all can be tweaked to apply to home life as well.

CBP

“Anytime you choose to walk, ride a bike, or take public transportation, you reduce (or totally eliminate) the carbon dioxide and particulate emissions created by driving a gas- or diesel-powered car” (Team Treehugger, 2009). The Community Bike Project (CBP) was founded by those at SUNY Cortland who were both aware of and concerned about carbon dioxide emissions and the well-being of the environment. As a result, the CBP offers the use of what they term a “fleet” of colored bicycles (yellow, red, and green) as a substitute means of transportation to, from, and around campus and the Cortland Community. The bikes are donated to SUNY Cortland where they are fixed up, painted, and named by student volunteers who are also responsible for running the bike shop located by the Lusk Field House.

The process for renting a community bike is quite simple; one must go down to the bike shop with a campus ID and sign a bike out (guidelines are also explained on each bike). If need be, sign-out time can be lengthened by either stopping by the bike shop or e-mailing someone at the shop. To return the bike, they can simply be ridden back to the bike shop, locked

up in the rack, and the key dropped in the drop box by the door of the shop. All rentals include (at the very least), free maintenance, repairs, and bike locks whereas certain rentals also include a helmet and bikes with hand brakes.

The yellow bikes are available for use seven days a week, free of charge whereas you can rent the red bikes for \$25.00 a semester. The newest addition, the three wheeled green bikes, can also be signed out on a weekly basis similar to the yellow bikes. The CBP is sponsored and supported by Action Sports, the ASC, SUNY Cortland Cycling Club, Cortland Count Healthy Heart Program and Kionix but has essentially been led by the SUNY Cortland Recreation, Parks, and Leisure Studies Department. You can get involved in the CBP through either volunteering or donating. Volunteering includes working as a bike shop attendant, mechanic, designer/painter, or as bike advocate who helps by educating others on the bike project and returning any lost or damaged bikes. Donations can include either a bike itself or money which will go towards purchasing bikes and furthering the development of the CBP. Pending the monetary donation, select CBP memorabilia is distributed back to the donator, such as bumper stickers, decals, water bottles, and shirts (SUNY Cortland, 2011).

Carpooling/Recycling

The SUNY Cortland website offers various outlets that students and faculty can use to find others to carpool with and not necessarily just to and from school and/or work. The websites that are provided can be used for any kind of carpooling scenario. Carpooling has in itself the potential to dramatically contribute to the reduction of GHG emissions from both lengthy and short commutes. Factoring in commutes for a college that employs about 500 faculty members

and enrolls over 7,000 students (some coming from outside of Binghamton and Syracuse) can add up to a very alarming rate of just daily GHG emissions let alone the weekly and yearly impacts (Study New York, 2011). Those interested in carpooling should exercise caution by meeting at safe places and discussing and deciding upon personal preferences among the group (such as smoking and eating) prior to carpooling together to avoid any unnecessary controversies. Another added benefit for carpoolers is a potential insurance rate reduction if carpools are done on a frequent enough bases (SUNY Cortland, 2011).

SUNY Cortland buses are also available to utilize to and from different parts of campus; offering yet another alternative to driving. Aside from the environmental benefits, by lowering the amount of vehicles on campus busing helps to make the grounds a safer place to walk and ride bikes. According to calculations by Brice Smith, the Associate Professor and Chair of Physics, the total daily accumulation of mileage to and from campus for students and employees equates to encircling the globe at the equator (the earth's largest circumference), twice (Smith, 2011). That is 24,901.55 miles, twice (Rosenberg, 2011). Take this number and multiple it by seven days a week and it is easy to see why campus officials are working so hard to encourage other forms of transportation. In reality, we would prefer to diminish driving as much as possible considering "the cumulative annual commuting distance driven by members of SUNY Cortland is nearly 10.8 million miles" but the benefit of busing is it transports a larger group of people at one time (Smith, Brice and The Climate Action Planning Committee, 2011).

Concerning recycling efforts, SUNY Cortland's Campus Recycling Committee, made up of twelve committee members employed at the college, continually work towards educating students and staff about different aspects of the college's recycling mandates and methods of cutting back on unnecessary waste. Substances recycled at the college include paper, cardboard,

co-mingles, as well as toner and ink cartridges. Within each building there are also specific locations where one can recycle bottles and cans worth a deposit. Again, efforts such as these can easily be mirrored in one's home life where these substances are also found and used regularly (SUNY Cortland, 2011). According to studies, recycling and composting in 1999 alone saved landfills over 64 million tons of additional materials to be dealt with, and with more education and recycling since then imagine how much more recycling and composting has decreased landfill use. Forty percent of energy can also be saved by recycling newsprint (Team Treehugger, 2009).

ASC

The Auxiliary Services Corporation (ASC) is a not-for-profit organization that has been providing services to the campus community for over 50 years. Contracted by SUNY Cortland, ASC is run by a Board of Directors comprised of administrators, faculty, and even students who work to provide those at the college with ID cards, dining services, vending machines, campus stores as well as employment; ASC leads SUNY Cortland in employment, offering jobs, and if applicable, benefits to over 300 people. As a crucial part of our campus community, ASC has put in momentous effort to become more sustainable as well as educate and encourage more sustainable habits among their employees and the students they provide services to.

ASC Changes/Replacements

The ASC has spent tremendous amounts of money (well over \$271,000 the past five years) in order to replace high-energy consuming equipment with more energy efficient models which has resulted in the college saving hundreds of dollars in energy costs each month (McNamara, 2011). These kinds of energy savings serve as a vital part of the college's

Sustainability's Master Plan to lower the college's carbon footprint as mentioned previously (JMZ Architects and Planners, P.C. , 2008). Some of the equipment that ASC has replaced includes but is not limited to an electric boiler (for a gas boiler), an electric pizza oven (for a steam-fired oven), an electric fryer (for a gas fryer), and an old dishwasher (for a more efficient model that uses less water). While such large equipment replacements have noticeably lead us towards a more sustainable establishment, it would be remiss not to subsequently note the "little" things ASC has also done in order to become more environmentally friendly.

By eliminating trays and switching to reusable service ware, Neubig Dining center has reduced water, chemical, plastic, foam, and food wastes. Service ware from Hilltop and Dragon's Court is now reusable and in certain cases compostable. Wastes have also been reduced by Dunkin Donuts who went from using plastic and foam cups to paper cups. Dunkin Donuts has also disregarded the long standing policy that a paper bag must be supplied with every order, a similar procedure that was done in Subway where orders no longer need to be placed in a plastic bag before being given to the customer. At Raquette Lake in 2007, ASC also switched from paper napkins to linen napkins which can be continually reused.

Additionally, ASC offers a 15 percent discount on refilling mugs as opposed to using a new cup for any and all drinks throughout the day. Their slogan, "refill, don't landfill," exemplifies the company's belief that reusing is more desirable and beneficial to all. As a whole the ASC Dining Services started using Greenware products to package and when applicable, serve goods. Greenware products are made from corn and are clearly labeled on all shelves in the various dining locations throughout campus; their eco-friendly packaging is being used for

parfaits, candy, and as serving glassware during catering events run by the ASC (McNamara, 2011).

ASC Website and College Store

To help eliminate substantial paper waste, in 2007 ASC spent \$40,000 to upgrade their website in order to transition from paper dependent resources to online applications. ASC no longer does any of the following: accept paper applications, promote through flyers and brochures, or offer paper surveys. ASC has also cut back on paper waste by utilizing their website for ordering and transfers when applicable (Smith, Brice and The Climate Action Planning Committee, 2011). In the ASC Maintenance sector, chemically harmful supplies that contain bleach, ammonia, and were solvent-based, were replaced with those with green chemicals such as hydrogen peroxide, sodium sulfonate, and alcohol. Moreover, only Energy star appliances have been purchased for the college since 2008 (McNamara, 2011).

The college store has made their own advances in sustainability by encouraging the use of used and recycled text books. At this point, the store sells 65 used books to every 35 new. The store works to eliminate waste and preserve current materials by capitalizing on the return of cardboard boxes used to prepack textbooks; a rebate is rewarded to students after their return. In 2009, the college store also added a printer cartridge refill machine to their offered services, allowing students to refill their print cartridges as opposed to having to buy new ones (currently over 1,000 cartridges have been re-filled). Also, to end your time at SUNY Cortland on a sustainable note, the college store offers a 100% biodegradable material for graduation ceremony

accessories. The fiber, taken from a renewable resource, gives students the opportunity to choose the materials used in the creation of their gown, cap, and etc (McNamara, 2011).

Keeping it Local

It is said that “buying local means supporting the local economy and reducing the greenhouse gas emissions required to get food from its origin to your plate” (Team Treehugger, 2009). ASC in particular has made a huge effort to support local business which has not only helped the economy of our and surrounding communities but has also eliminated a lot of travel wastes (gas, GHG emissions, etc.). In 2010, ASC established a partnership with Sarvay Shoes (located on Main Street in Cortland) and as part of the agreement ASC commits to buying the shoes provided to their employees through this business; keep in mind, as the largest employer at SUNY Cortland this kind of partnership makes a substantial impact. Also in 2010, ASC replaced Freshens concept with Yolato, a provider that uses a local dairy to generate their smoothies and soft serve ice cream. As an additional benefit, Yolato is distributed by a local vender; ultimately, dining services as a whole uses “two primary, local, vendors, reducing traffic, emissions, and paper waste” (McNamara, 2011).

In 2007, ASC Dining Services also joined forces with a farmer in Marathon who has acquired his own unique way of being sustainable. He picks up around 3500 gallons of pure vegetable oil a year to power his farm equipment, house, and the very truck he uses to get to the college (Smith, Brice and The Climate Action Planning Committee, 2011). Hilltop also supports a local farmer through their composting program, a system that William McNamara, the Director of Dining Services, hopes to eventually implement in all Dining Services once the program works out all of its kinks. The farmer will ideally use the composts for his fields, which can only

contain certain products that the students are responsible for sorting through and depositing in labeled bins after their meal (McNamara, 2011).

ASC's dining services has also started running "Sustainable Food Days" at Neubig where they focus on providing local food items. Such events not only educate students and staff about where their meal is coming from but as a result they also inform them on where they too can purchase food locally. This again helps boost local economies and eliminate travel costs and the negative environmental impacts tied in with them. The table listed below lists the local products and vendors that SUNY Cortland currently uses:

<u>PRODUCTS/VENDORS</u>	<u>LOCATION</u>
Upstate Farms	Buffalo, NY
Bagel Lovers	Dryden, NY
Coffee Mania	Cortland, NY
Crowley's Soft Serve	Cortland, NY
Bottled Water	Edmeston, NY
Greenware Products	Rochester, NY
Great Lakes Cheese	Cuba, NY
Cornell Dairy	Ithaca, NY
Cornell Cider	Ithaca, NY
Maines Paper and Food	Binghamton, NY
F&T Distributing	Ithaca, NY
Ames Linen	Cortland, NY
Coffee Mania	Cortland, NY
Badman's Bushel	Homer, NY
Little York Farms	Homer, NY
Sarvay Shoes	Cortland, NY

(McNamara, 2011)

To accomplish all of these sustainable tasks ASC can only use the revenues they receive from purchased meal plans and selling and buying back textbooks which is not always the most effective means of funding due to inconsistencies in meal plan purchases year and increasing competition from other textbook companies. However, that being said the ASC still finds ways

to give back, both through scholarships and donating perishable items to Loaves and Fishes over college breaks before select food goes bad (Smith, Brice and The Climate Action Planning Committee, 2011). If the ASC can do all of these things in addition to recycling all cans, plastics, cardboard and greatly reducing plastic bottle and foam use despite income and time, what excuse to we have as students and faculty when it comes to doing better by our environment?

The ASC has lead through example to become a campus leader in sustainability. Although few people are aware of their efforts and continually growing energy and environmental improvements, they provide a remarkable example of the avenues that can be evaluated and utilized not only by college services but even (and equally as important) by students and faculty in their choices at home and overall life inside and outside of college grounds. Having these kinds of examples to look to and evolve from allow us as individuals to look at the bigger picture; "...everything we do every day has an impact on the planet -- good or bad. The good news is that as an individual you have the power to control most of your choices" (Team Treehugger, 2009). Of such choices, one therefore has the ability to design and structure their home to environmentally friendly standards.

USGBC

The U.S. Green Building Council (USGBC) is a nonprofit organization that leads and fosters the construction of "green" buildings; their mission is to improve the quality of life through environmentally friendly building design and structure. Through its LEED (Leadership in Energy and Environmental Design) green building certification program and additional applications, the USGBC is constantly working towards a more maintainable and affluent future. According to the USGBC,

“Buildings in the United States are responsible for 39% of CO2 emissions, 40% of energy consumption, 13% water consumption and 15% of GDP per year, making green building a source of significant economic and environmental opportunity. Greater building efficiency can meet 85% of future U.S. demand for energy, and a national commitment to green building has the potential to generate 2.5 million American jobs”

USGBC supports sustainability efforts through education, advocacy, LEED ratings, Greenbuild International Conference & Expo, Chapter Programs and Emerging Professionals and as of today have 16,000 companies and organizations as joined members (U.S. Green Building Council, 2011).

LEED

LEED was developed in 2000 and offers a framework for green building design and building maintenance for both residential and commercial establishments. Currently LEED projects are being undertaken in all 50 states and over 90 countries. The LEED is a 100 point system that rates buildings based on the following criteria: water savings, energy efficiency, materials selection, sustainable site development, and indoor environmental quality. After the assessment of such standards, buildings receive one of four ratings (certified, silver, gold, or platinum) pending the number of points earned. Those wondering what a LEED certified building entails can experience one up close and personal right on our very own campus.

In 2005, 32 years after the last campus dormitory was built, the Glass Tower became one of 40 innovative buildings in NY to achieve LEED certification. Commenting on the accomplishment, President Bitterbaum expresses the colleges' pride and ongoing dedication towards achieving energy efficiency and carbon neutrality. The college has decided to seek LEED certification from all additional as well as renovated buildings on campus, a task that is underestimated by those not familiar with the process. LEED certification considers the most minuscule details from the size of the trees to the number of bike rack spaces before concluding the building is up to par with their principle standards (Wilson, 17).

It appears to be a general consensus that few people truly comprehend the strides that need to and will be taken to reach sustainability goals. Efficient energy standards go way beyond switching out older light bulbs with energy efficient light bulbs (Slack, 2011). While all can agree that a little goes a long way, the college is pushing for more than just mediocre reductions; as a whole the campus and community are truly working towards making a difference. All things considered, it appears as though the college will not be slowing down any time soon; the designers of the projected Student Life Center hope to surpass the glass tower in its LEED certification rating and are striving for gold certification status (Smith, 2011).

Another noteworthy building on campus is the Professional Studies building which opened in the Fall of 2009. In efforts to diminish the college's carbon footprint developers were able to incorporate geothermal heating into the plans for this particular location on campus. As part of the construction process, 40 geothermal wells were dug 400 feet below the surface which in the summer will enable the college to release heat into the earth to cool the building and in the winter extract heat from the earth to warm the building (SUNY Cortland, 2008-2011).

According to Tim Slack, the college is also looking into wind power options from recently installed wind turbines in the Willet/Marathon area (Slack, 2011). In regards to this option the Climate Action Plan states that “Cortland County has a relatively high wind capacity and the production of electricity from wind turbines in Central New York peak during the winter making them a good match for campus demand” (Smith, Brice and The Climate Action Planning Committee, 2011). By considering and choosing different alternative energy sources, SUNY Cortland appears on path to continue their advancements in overall reductions and fulfill the goals laid out in their Sustainability Plan.

Heat and Electricity

As stated by the Climate Action Plan, studies in 2009 conclude that the total campus GHG emissions amount to 26,800 tons a year; 9,080 (33.9%) of those tons being from heating and another 8,880 (33.1%) from electricity, factors which together equate to over half of overall emissions (Smith, Brice and The Climate Action Planning Committee, 2011). To fight emissions in the heating sector, the college will be investing \$12 million dollars into the Satellite Boiler Project. The project, which will take about two years to finish, will ideally save the college about 35 percent in utility expenses by reducing unnecessary wastes (SUNY Cortland, 2008-2011). Essentially, the reason behind the boiler project is to allow each building to control their own heat and to eliminate the waste of heat energy when it is transferred through pipes into each building from the now sole boiler (Smith, 2011):

Although significant savings would be produced by completing the project, the idea in itself made me curious as to why the college chose to continue using natural gas when there are more sustainable heating options available. The Professional Studies building demonstrates the

capability of geothermal heat so we know it is technically feasible for the college to implement so why is it not in the plans for other areas of the college as well? Just as knowing about alternative sources of energy is important, equally as important is recognizing and understanding the limitations of alternative forms of energy. While these alternatives may be more ideal than the forms of energy currently in use, unfortunately they are not always applicable. When drilling wells or agreeing to carry out different aspects of an installation process it is important to consider the aquifer as well as other aspects that may be affected when switching to an alternative source of energy.

Ultimately, when studying alternative energy one must remember to focus on the negative aspects associated with the alternative energy source as well as the positive; it goes deeper than what one may consider “best” for the environment. However, just because one does not switch to another energy source does not mean that there are no other avenues that can be taken to decrease harmful environmental impacts. The college has already begun offering cash incentives for conserving energy; rebates are provided to those living on West Campus whose apartment consumes the lowest amounts of electricity, showing that there is still hope without a grand trade off. As a whole, in the electrical sector, “three primary areas have been targeted, namely lighting, motors, and HVAC equipment, and the plug load driven primarily by computers and other types of personal electronics” (Smith, Brice and The Climate Action Planning Committee, 2011). Everyone can relate to how much keeping appliances plugged in at home can run up the electric bill; now imagine the bill for just one building on campus and project that number further by considering the campus as a whole; dorms, the stadium, education buildings, etc.

Education

The heart of sustainability goals goes well beyond developments and improvements, in this sense, there is only so much that designers and campus officials can do. Many if not all of the organizations aforementioned all believe in the value of education in addition to physical changes and replacements. According to her article *Education for the Sustainable Future*, Debra Rowe writes “for real progress, the implementation has to be broad...and thorough. We need to make sure that none of the courses currently being taught in the United States reflect the old, inaccurate paradigms such as ‘endless resources’ and ‘man conquers nature’” (Rowe, 2007). For all intents and purposes, the way we look at the world and what it has to offer now cannot be the same as how we have looked at it in the past.

Essentially, one cannot desire to change the future if they do not know what the future is capable of bringing. For that reason, the college sponsors a Greenrep program whose members are responsible for both raising awareness about and promoting sustainability. Each residential hall on campus has a Greenrep that contributes to the construction of “going green” bulletin boards and the coordination of educational events on campus that offer programs to increase awareness. Educational speakers are also invited to campus on a yearly basis and exhibits can be found at various times throughout the year to highlight environmental causes (SUNY Cortland, 2008-2011). The Environmental Science Club established in 2007 (also known as C-SAVE) has also organized programs and undertaken various measures to bringing “wasteful energy consumption patterns” to light in order to exhibit the reality of what wasteful lifestyles can mean if they are continued at their current rate (Smith, Brice and The Climate Action Planning Committee, 2011).

Brice Smith also explains that the college has made a vigorous effort to expand sustainable energy education on campus (Smith, 2011). Aside from offering a number of undergraduate programs and classes that either focus on or relate to sustainability efforts and environmental education, SUNY Cortland now offers a master's program in Sustainable Energy Systems (SES). The mere offering of such a degree program demonstrates the universities' understanding of the significance of renewable energy sources. The physics-based master's program includes various classes including those on sustainability as well as courses geared towards specific forms of alternative energy and how they work. The two year program ends with an internship with some form of renewable energy company and the goal of the program is to provide students with the materials and skills needed to pursue a career in energy technologies and employment with a company that offers and implements alternative forms of energy (SUNY Cortland, 2011).

SUNY Cortland also partakes in a yearly "sustainability week." The slogan "help us make every day earth day," exemplifies the goals behind the activities and programs presented throughout the week. Some of these activities include cleanup days, opportunities to buy goods locally, educational and awareness raising trips (even a bike trip), films, seminars and much more (SUNY Cortland, 2011). For the ACUPCC, SUNY Cortland signed up to be a leader in their community but that does not mean that they do not utilize community resources in the process. The CCRRI (Cortland Community Relocalization and Resilience Initiative) is part of a forum track that works to educate today's community; identifying and evaluating the community's efforts in sustainability as well as promoting economic growth and wellness education

Sustainable Cortland is another community group connected with these programs and similarly focuses on the concepts involved in the sustainability realm of climate change, the depletion of natural resources, accessibility of water resources, and the overall well-being of the environment. Aside from what you can learn from resources on campus and in the community, it is just as easy to research ways to go green in the comfort of your own home. Massive amounts of internet sites and books offer and explain various ways to decrease ones carbon footprint in everyday life.

Why?

Bob Dylan sang “if your time to you is worth savin’ then you better start swimmin’ or you’ll sink like a stone, for the times they are a-changin’” (Dylan, 2004-2011). The world we live in now is not the same of that of our parents and grandparents and consequently the way we have to look at things now is not the same as how things were viewed years ago. Revolutions throughout history have now led society to a place where one must increasingly rely on energy and natural resources, resources that we now understand cannot continue to be used and abused at current rates. I chose to focus on this topic because I am scared of the kind of world that lies ahead for future generations if we do not come together to understand and embrace the notion of sustainability.

The findings outlined in this paper recognize what can and will be done to alter the path we have been on, actions that have been put into place in hopes of avoiding that kind of world I fear may lie ahead of us. Yes, individuals can make a difference and yes, working together can make a difference but in the end a difference *has* to be made. In a world that is forever changing and developing, I believe that there will be even more setbacks and obstacles to overcome but I

equally believe that if we focus on education and continually work towards understanding Mother Nature we can learn from her. If Mother Nature recycles and thrives despite fluctuations and hindrances, there is no reason nature and humanity cannot continue to co-exist on this planet.

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