**GSSE Venture Projects (Cohort 1)**

**Czero Inc**, a Fort Collins based vehicle engineering company with expertise in hydraulics, has developed a hydraulic hybrid retrofit kit that will improve the fuel efficiency of large municipal vehicles in developing markets. Rising fuel cost worldwide make increased fuel efficiency a major economic incentive for operators. Reduction of harmful emissions is a natural outcome of this technology reducing pollution levels locally and globally. A GSSE team worked in India to conduct market research to determine how, when and where such a product could be introduced.

**Outcome:** C-Zero operates in Fort Collins. The two GSSE students who worked on this venture now work at the Department of State and in IT consulting in India.

**Dhaka Weaves** promotes women's self-sufficiency and empowerment through training, economic opportunity and linking entrepreneurs to markets. Dhaka is wholly owned and managed by women and is devoted to preserving traditional Nepali weaving. The GSSE team provides business planning, capacity building, market expansion and sustainable growth. The products are beautiful and the spirit of the women is inspiring, making this a perfect partnership for developing world business and GSSE.

**Outcome:** Dhaka Weaves continues to operate as a company. The GSSE students now work in other areas; one is the Campus Energy Coordinator at CSU.

After spending the summer in Cambodia assisting the Wildlife Conservation Society with its business plans, the GSSE-Cambodia team returned to Fort Collins to work on an international marketing plan for products produced by wildlife-friendly agricultural cooperatives in Cambodia. **Wildlife Friendly Rice** is one of the products the team focused on promoting.

**Outcome:** The Wildlife Conservation Society works globally on wildlife and environmental issues, but the GSSE students are not involved in the company.

In a region where only 1% of those who need a wheelchair have one, and in an industry that is dominated by the charity model, **MASA** (Mobility Aids for Southern Africa) is developing a sustainable business model to efficiently provide wheelchairs, mobility aids and services to ensure a proper fit. MASA is comprised of three GSSE students with diverse professional backgrounds, strengths and interests. Working with organizations such as Disacare, in Zambia, Shonaquip, in South Africa, and the Association for the Physically Disabled in Kenya, they are developing a sustainable enterprise to solve this stubborn social problem.

**Outcome:** MASA transformed into the Uhambo Foundation which is raising critical funds for the South African organization of the same name.
Over half the world does not have access to affordable, safe, and healthy products to meet their daily needs. **PowerMundo**'s goal is to improve people's lives and conserve the natural environment by developing and delivering affordable clean technology products for millions of people in emerging markets. PowerMundo is currently building a distribution network for solar lights and radios to help the 7.5 million Peruvians who do not have access to electricity. Learn more about this unique startup company at PowerMundo.com.

**Outcome:** PowerMundo continues to operate and has been successful in raising substantial funding to develop their venture and hire staff in Peru.

The built environment accounts for roughly 40% of the earth’s energy use, and it is estimated that 1.5 billion people live in urban slums, while millions more live in sub-standard housing elsewhere. **Su Casa** seeks to develop sustainable solutions to these global housing problems, with the vision of providing dignified, eco-friendly homes to BOP customers. Currently, Su Casa is working on product development and market research analysis for sustainable, social-interest housing in Yucatan, Mexico. Working with the Universidad Autonoma de Yucatan, we are incorporating sustainable design principles with local consumer preferences, and assessing the possibilities for market entry.

**Outcome:** Su Casa is not operating. Several of the GSSE students involved in it created another venture called Panda Bikes (see below)

**SEED** (Small Engines for Economic Development), is a product and technology development firm focused on developing countries. SEED is developing an energy efficient engine for small scale irrigation. Hundreds of millions of farmers irrigate by hand watering, with labor intensive treadle pumps or with oversized and inefficient engines. Working with Denver based International Development Enterprises, SEED is defining the opportunity for a micro-diesel motor and pump set in Ethiopia, Bangladesh and India. The team spent the summer in Ethiopia and Bangladesh observing the irrigation practices of 200 farmers and analyzing import, wholesale, retail, pricing and other aspects of the pump set market. Working with farmers and ten organizations across the globe - including engineers at CSU’s Engines and Energy Conversion Lab - SEED will help to increase agricultural productivity in developing countries.

**Outcome:** SEED continues to operate in Bangladesh with 50+ prototypes being tested in the field by BRAC, the world’s largest NGO. They plan to expand operations into India.

At **Panda Bicycles** “we’re growing bikes™”. We exist to create beautiful and functional bicycles for bike enthusiasts, everyday cyclists, and urban commuters. We hand craft each one of our unique bike frames at our shop (affectionately called the Greenhouse) in downtown Fort Collins, Colorado. Panda provides a competitive and natural alternative to traditional performance bicycles. Using bamboo as the primary building material results in a super strong, ultra durable frame that provides style and comfort unlike any other frame material.

**Outcome:** Panda Bicycles continues to operate as a successful business in the United States.
**GSSE Venture Projects (Cohort 2)**

**Organic Oasis:** In arid regions with poor soil, fertilizer and fresh water necessary for agriculture are scarce and expensive. Aquaponics is the symbiotic cultivation of plants and aquatic animals in a recirculating environment. Organic Oasis (Lima, Peru) sells aquaponics micro-franchise kits that will enable families working with micro-credit institutions to grow their own fresh produce and raise their own fish, which they can sell at affordable prices to community members. The three management officers are former Peace Corps volunteers who believe that the most sustainable solutions to world problems will be found through increasing eco-friendly productivity and empowering local communities.

**Outcome:** Organic Oasis no longer operates. One of the GSSE students is working for a sanitation start-up in Ghana, growing fish in treatment ponds.

**Running Water International (RWI)** aims to improve the lives of developing world communities by providing appropriate solutions to the global water crisis. RWI employs and trains local people to produce, sell, and install affordable and effective household water treatment products, ensuring access to safe and clean water throughout the developing world. In future years, they intend to extend their offerings to include water supply and sanitation solutions. RWI is a system integrator, connecting communities with existing water resource solutions to best serve their needs.

**Outcome:** RWI continues to operate as a company employing local staff in Kenya

**Telecentros Comunitarios** works with communities in Ecuador to address the technical feasibility, financial requirements and operational costs to implement self-sustained, locally managed, internet protocol (IP) based Telecenters connected to the Internet. The implementation allows communities to access global information, knowledge, and cultural exchange, potentiating the implementation of applications such as tele-education, tele-medicine, micro-financing and micro-insurance.

**Outcome:** GSSE has lost track of the Ecuadorian student building this venture.

**AYZH** is a venture founded on the belief that sustainable development is incomplete without economic empowerment and the interests of women at its core. The process starts with understanding the desires and needs of the world’s most impoverished women. AYZH then engages innovations developed in university labs to meet those needs. Historically, such innovations have been challenged by supply chain inefficiencies and a lack of market testing. Therefore, AYZH is working with companies focused on aligning their core business activities with corporate social responsibility to test, manufacture, and disseminate these innovations to local distributors. The AYZH product portfolio is focused on technologies providing livelihood generation and health benefits. They imagine a world without poverty, create solutions to meet that vision, and connect stakeholders with the solutions they need to start alleviating poverty one woman at a time.

**Outcome:** AYZH continues to function as a business and is currently seeking funding to scale up production and sales in India and expand operations into East Africa.
GSSE Venture Projects (Cohort 2)

**Rocky Mountain Hops (RMH)** supports the development of a Colorado hops industry while promoting the ‘local to local’ relationship. Partnering with small farmers and local Native American Indian tribes, the team will help develop a sustainable regional hops industry that will support Colorado agriculture and the Colorado microbrewers industry. RMH consults with Colorado farmers on hops cultivation and fills a current void by building a sustainable processing facility to process the hops plant. CSU Specialty Crops Program research shows that, due to Colorado’s sunny and dry climate, there is great interest and promise to grow a hop industry. There is also increasing popularity of hops due to their unique chemical properties, including anti-cancer and estrogen-mimicking compounds beneficial to human health. It is RMH’s goal to promote and change the face of the industry.

**Outcome:** RMH is no longer operating

**Cradle of Tea** intends to bring a traditional tea brewed from the leaves of the coffee tree to US and European markets by leveraging the existing supply chain for Ethiopian coffee. With minimal capital investments and by generating employment in harvesting, processing, and on-site packaging, Cradle of Tea’s pursuit of sustainable economic development will add value to an existing raw material. Coffee leaf tea has not yet found significant value in export markets, but it already exists in the hands of the rural poor. The enterprise’s core goal is to help alleviate poverty through alternate income creation. With production and market verification, the team asserts that the coffee leaf tea model developed in Awassa city can be replicated elsewhere in Ethiopia, and in other developing world nations. They plan to leverage an existing non-valued resource and open the door to an entire new line of beverages.

**Outcome:** Cradle of Tea continues to operate, however the GSSE student who is building it took work with USAID in Afghanistan to pay his student loans.

**Latin Health** is developing a viable business model combining the goals of improving individuals’ health and creating business opportunities for low-income families. The team conducted market research in the summer of 2009 to study the viability of introducing a multilevel marketing mechanism to distribute a suite of household healthy products. Using the insecticide-treated curtains made by Bayer and Acytex International as Latin Health’s pilot product in Merida, MX, Latin Health seeks to use their research findings to upgrade the living standards of Latin America and branch off to other countries of the global South.

**Outcome:** Latin Health is no longer operating, but it did pave the way for another Latin America health-oriented venture team in Cohort 3.
GSSE Venture Projects (Cohort 3)

Latitude Alliance offers business plan development services to social entrepreneurs in developing countries. They partnered with Christian Aid and ToughStuff International to create micro-enterprises with solar-powered household products in rural Kenya. A sales and product training program was designed and conducted for select village entrepreneurs that is still being used today. In Cameroon, the team worked with the African Center for Renewable Energy and Sustainable Technology to assess the market for their charcoal briquette and basic utility vehicle projects. The team also worked in India to support AYZH Inc. with partnerships, customers, and relationships in the maternal health care sector for poor rural families.

Outcome: Latitude Alliance is no longer operating, however the GSSE students are working in similar areas; one is working for International Development Enterprises and one is working with another GSSE venture, AYZH

TANSI (Thin Air Nitrogen Solutions International) focuses on the 383 million rural farmers worldwide who depend on agriculture as a means to feed their families and to drive their livelihood. 48 million of these farmers (12%) live in Ethiopia. After generations of over-farming, the soils in Ethiopia do not support crop production. Further, inefficient transportation drives the price of commercial fertilizers to unaffordable levels. TANSI is working with CSU soil scientists to develop a highly effective, low cost, nitrogen fertilizer from blue green algae (BGA) that can be grown in remote locations. TANSI travelled to Ethiopia to examine the feasibility of various production and sales models, ranging from individual micro-franchisee production to centralized distribution facilities. Concurrently, the history of BGA algae as fertilizer in India, and its subsequent market failure, was investigated as well.

Outcome: TANSI is still being developed as a venture by a soil sciences faculty member. The students are working in other areas of development, one is working for International Development Enterprises and one is working with another GSSE venture, AYZH

Living Roots' pilot venture is designed to help ranching families in Baja California, Mexico who are in danger of losing a centuries old lifestyle because they can no longer afford to remain on their land. The team helps rancheros recognize and capture the economic value of their cultural assets including, artisanal food and handmade crafts. Living Roots will enable ranchers to connect directly to attractive local markets and expand sales by adding value through regional branding, promotion and labeling which highlights the unique story of the Baja ranchero. Living Roots will also initiate an agri-tourism program designed for those interested in learning local skills and traditions - such as making goat cheese, olive oil and craft leather - directly from ranching families.

Outcome: Living Roots continues to operate as a product marketing business and is currently seeking funding to develop the marketing co-operative and hire local staff

Vivodec is an early stage textile and home furnishings enterprise located in Fort Collins, Colorado created to develop and market beautiful products in the U.S. while building healthier communities in Latin America. Through combining the team’s interest in textiles and infectious diseases in Latin America, Vivodec created a one for one business model, starting in Guatemala, to increase the income of impoverished weaving artisans and reduce the incidence of dengue. The enterprise will design and manufacture decorative pillows that incorporate high quality hand woven textiles imported from Fair Trade Organizations. For every pillow sold, Vivodec will provide an insecticide-treated curtain to a Guatemalan home.

Outcome: Vivodec is a current venture in our New Economy Venture Accelerator and is now working to build-out their local supply chain and US customers
Access Academies International (AAI) is a for-profit business in Ghana that provides accessible quality primary education to address the education access gap faced by the growing middle class in Ghana. High quality elementary schools are either too expensive or inaccessible. AAI fills this gap by implementing a modular and accessible school system that allows rapid expansion. AAI will increase Ghana’s human capital development, reduce carbon emission through less car travel time by parents and will be profitable from year one.

**Outcome:** AAI is a NEVA venture and is currently seeking funding to buy land and begin building schools.

**Tatanka** is a Fort Collins-based distributor of grass-fed, field-harvested bison meat raised by tribal communities throughout the Rocky Mountain region. Tatanka’s mission is to provide the healthiest, most sustainably raised meat available to consumers while offering economic opportunities to Native American ranchers. Ranchers use sustainable practices, allowing the bison to live symbiotically with the ecosystem with which they evolved. Bison meat aligns with emerging trends in the consumer food marketplace. Tatanka utilizes direct sales channels through Farmers Markets and Community Support Agriculture shares, a space where consumers are willing to pay higher margins for specialty products.

**Outcome:** Tatanka continues to operate as a company, however the GSSE students now work in other areas including small business consulting.

**Saraii**, the essence of Sri Lanka, is a village eco resort to be set up in a rural Sri Lanka farming community. Saraii adds an ethnic essence and intense Sri Lankan experience through activities such as jungle safaris, elephant rides, farm education, hiking, biking, and indigenous immersion. As an eco-friendly village resort, lodging consists of traditional Sri Lankan styled homes and luxury tents made locally with local materials. Saraii will positively impact lives of the rural community through sustainable economic, social, and environmental development. Saraii is the place to stay for the environmentally conscious traveler craving a new lifestyle experience.

**Outcome:** Saraii is operating as a business and will begin construction of it’s first resort facilities this year.

MyTeacherMap.com is an educational-software company that helps teachers meet the unique learning needs of children in low-income communities. MyTeacherMap software creates specific lesson plans to meet individual student needs. In schools where students typically fall three and four years behind grade-level, it is critical that teachers fill each individual student's skill gaps. With the MyTeacherMap software, teachers upload a completed student assessment to their account. The software automatically grades the assessment, documents the student’s progress in a data chart, and then generates a set of lesson plans designed to meet the unique learning needs of that student.

**Outcome:** MyTeacherMap continues to operate and is currently seeking funding to complete development of the software prototype and pilot the product.
GSSE Venture Projects (Cohort 4)

**Taka Energy** creates economic, environmental, and social value by providing a sustainable waste disposal solution that produces clean, renewable energy and creates local jobs. We develop and operate municipal facilities that convert a variety of solid waste streams into clean electricity using pyrolysis technology. A typical 5MW facility uses the daily trash of 91,000 people to provide clean energy to power 3,600 homes. We combine equipment from partner suppliers to design an efficient, cost-competitive, and virtually emissions-free system. By capturing multiple revenue streams, diverting waste from landfills, generating reliable clean energy, and creating jobs, Taka Energy strives to create triple bottom line value.

**Outcome:** Taka Energy continues to operate as a business with the founders working part-time.

**LoCo Food Distribution:** The local source for local food products. By purchasing local products, each dollar is spent an average of seven more times inside our local economy. This strengthens not only the farmers and producers who make these products possible, it strengthens the entire community. LoCo is a wholesale distributor, aggregating the products from small and mid-size producers and selling to Colorado’s restaurants, grocers and institutions.

**Outcome:** LoCo Food Distribution is continuing operations, but the GSSE students are working elsewhere; one in a local business incubator and one in a local technology start-up.
NOYA Fibers works alongside The Nature Conservancy and Patagonia, Inc. to increase value in the supply chain of sustainable cashmere production and processing in Toson Khulstai, Mongolia, centered around efforts to protect and preserve natural grasslands and improve the livelihoods of the herders. Recently, a market spike in the demand for cashmere has led herders to over-graze their natural, communal pastures, yielding lower quality cashmere and threatening long-term livelihoods for producers. NOYA Fibers seeks to incentivize grazing practices that will restore grasslands, connect the herders with Western retailers looking to procure sustainable sources of cashmere, and ultimately return higher annual income to the herders.

Creative Spring Productions is a social technology venture that provides custom post-production editing services to US based wedding photographers. This is accomplished through creating communities of talented at-risk youth in the Philippines who are likely to emigrate because of lack of employment opportunities. In providing wedding photographers with a cost-effective editing service, they are freed to grow their business and focus on their area of expertise. At the same time, Filipino youth are professionally developed, trained, and employed in an equitable and sustainable manner so that they may continue to strive in their local communities.

Traditional food systems are changing in East Africa as populations increase and more people move to cities. Multinational food companies like General Mills, Cargill and Nestle are all there because they see it as a business opportunity. We do too and can cash in on it with our innovative food technology. We throw away 15 million tons of rice bran a year, but Timamu Food Solutions will use it as a powerful food source. Timamu makes porridge flour for the 3 million children whose nutrition needs are not being met in the market, delivering healthier food, fuller lives, and happier babies.

While the worldwide demand for organic quinoa has risen, Bolivian farmers are experiencing progressively lower yields. This can be attributed to soil nutrient depletion from over-farming and the almost non-existent use of inputs to restore the soil. Siembra Organica proposes to fortify the organic quinoa farmland and increase yields with a locally produced organic llama manure-based fertilizer. Leveraging established networks in Bolivia, the venture will provide a triple bottom line impact by creating additional income generation for quinoa and llama farmers, revitalizing the degraded land and creating a sustainable for profit-business.
MayanTerra seeks to serve rural smallholders in Guatemala by delivering an integrated agroecological solutions package that saves farmers money, provides them with access to new markets, and allows them to grow more competitively priced produce in an environmentally sound manner. MayanTerra’s market-based approach to development, allows us to deliver goods and services of higher quality at lower cost. By partnering with local suppliers and farming cooperatives, MayanTerra will have the capacity to offer essential inputs in a way that can scale, ensuring the long-term sustainability of farmer livelihoods, our company and the environment at large.

Sustainable Livelihoods in Haiti: The goal of this project is to create a mechanism that will displace charcoal production from unsustainable sources and optimize a diverse and robust income portfolio for rural Haitian farmers based on agroforestry plantations with sustained yield. This pilot project will be a proof of concept. The long-term vision is to develop a model that can be widely implemented for the purpose of recovering and rehabilitating Haiti’s natural resources while developing sustainable livelihoods for rural farmers.

Venture Forward is currently working with business incubators in the Rocky Mountain region to develop early and seed stage funding solutions for start-ups. By gaining insight to the growing pains of ownership dilution and lack of access to capital, we are committed to finding customized solutions that allow growing organizations to remain true to their missions and goals.