**ENACTUS UNN TEAM**

**PROJECT SCRIPT**

**SPEAKER 1:** Identity, our culture, our heritage. A people woven from fabrics of diversity. With diverse tongue and different creed. What unites us? What defines us as a people? Where are we as a nation? Our humanity is wrapped in our daily struggles, our pains, our hopes and our dreams. To be good, to be better, to be more. We share in our dreams. Our hope for a secure future, a world better than we know it, a world a little subtle than we met it.

**SPEAKER 2:** A world for us and a world for all. What happens when in our quest for more, we bite the very hand that feeds us? The only place we can call home in the whole universe. We are so drunk for a brighter and shiner today that we tend to forget the consequences of our choices. And we are no different from our individual and collective choices.

**SPEAKER 3:** What would be told of us when we are long gone? What side of history are we? Will we be remembered for what we stole from our children or what we gave to them? We share in the Spirit of taking action. We believe that every crisis creates opportunity to learn and every struggle offers a chance to rediscover. We are committed to using the power of entrepreneurship to transform lives, inspire hope and create a better story for future generations.

**SPEAKER 4:** We are willing to try, to learn and to fail because we know that the journey towards creating something new is just as critical as the passion to succeed. I am 4 and with me are

S**PEAKER 5: 5**

**SPEAKER 1: 1**

**SPEAKER 2: 2**

**SPEAKER 3: 3**

**SEAKER 4:** And together we are

**ALL ENACTUS University of Nigeria, Nsukka.**

**SPEAKER 5:** Ladies and Gentlemen! Let’s take you through our journey. One of resilience, perseverance, innovation and success. A journey that has brought us to where we are today..... Improving Lives Forever! Our success is built on the foundation of entrepreneurship. Building an economy, one piece at a time. We are addressing the number one need of our target community by providing affordable and clean energy while taking effective climate action.

**SPEAKER 3:** According to The United Nations, 821 million persons are malnourished globally. About 1 person in every 9 and nearly 159 million children under the age of 5, that is, 22% of the global population has their growth stunted by poor nutrition. Extreme climate events are partly to blame for this rise. Flood, heat, storms and droughts have doubled since the early 1990s. Climate extremes have a direct impact on crop yield and food availability. Hunger is significantly worse where many people depend on agriculture for their livelihood. This inescapable fact is that climate change is now leaving people around the world without enough to eat and food insecurity is worse in countries hit by severe drought and flood. A hotter world is proving to be a hungrier world.

**SPEAKER 1:** To ensure that our intervention is in line with the needs of our target audience, we carried out a comprehensive NEEDS assessment in Nsukka community. We enquired from traders, farmers and community members. We didn’t impose our ideas on them. We asked questions. We listened. We learned.

We asked the community members what hopes and dreams they have for their community, and they almost said the same thing: We don’t have adequate power supply! We don’t have jobs! We don’t have food! And there is no good healthcare!

**SPEAKER 4:** With the high rate of population growth and the emergence of urban centers and cities, annual waste generation is expected to rise by 70% by 2050, that is, 3.4 billion tons of waste. Think about it, 40 percent of all food produced globally is wasted annually. 1.3 billion tons of food enough to feed 3 billion people just wasted, not even fed to animals or recycled.

It takes a land mass as big as China to produce the food we literally throw away. Wasting food is like stealing from mother nature. In Nigeria, biological waste is the 3rd largest waste stream.

**SPEAKER 2:** Our team discovered that food waste which is food that is lost or discarded uneaten, was a major problem in the community. And that gave rise to many hygiene related illnesses like Cholera, Diarrhea, Malaria and more. The community depends solely on firewood for cooking, emitting dangerous gases to the atmosphere. Also wrong farming practices like the use of chemical fertilisers, stubble burning and indiscriminate felling of trees have been handed down from generation to generation, causing soil erosion, depletion of soil nutrients, climate change et cetera. Artificial fertilizers have been found to emit nitrous oxide, a green house gas that is 300 times stronger than Carbon-dioxide (CO2). And farmers in this community still burn plant debris at the end of each farming season. In the last 130 years, the world has warmed up by approximately 0.852 degree Celsius. Each of the last 3 decades has been successively warmer than preceding decade since 1850. Sea levels are rising, glaciers are melting and precipitation patterns are changing.

**SPEAKER 5:** How can a group of student solve these global issues? How do we provide long lasting solutions to these challenges? Seeking new perspectives, challenging longstanding practices because we know that solving a problem the same way yields the same results over and over.

**SPEAKER 1:** Our team came up with an innovative solution to solve these challenges. Our solution is in two phases;

**First:** Conversion of biodegradable waste like food waste that would have ordinarily ended up in landfills to useful clean energy in form of biogas for cooking, biofuel for electricity and biofertilizers for improving crop yield.

**Secondly**: NO TILL FARMING: an innovative way of cultivating without disturbing the soil while preserving the soil nutrients.

Ladies and gentlemen, let’s introduce you to our project……..

**All:** **PROJECT TRIAD**

**SPEAKER 2:** For the testing stage of this project, we partnered with the National energy research and development center where we gained access to two metallic bio-digesters. This is how it works. The allocation of different elements into the digester is divided into three, 25% free space, 25% waste and 50% water. All these elements are combined and imputed into the airtight digester that undergoes the process of “anaerobic digestion” to produce biogas, consisting of methane, carbon dioxide, and traces of other contaminant gases that can be used directly as fuel to power gas engines or upgraded to natural gas quality known as bio-methane and the rich nutrient digestate can also be used as fertilizer.

**SPEAKER 3:** We launched an awareness campaign, **“ZERO WASTE’’** through flyers, Jingles on Lion FM and one on one interaction. We partnered with the department of human kinetics in facilitating this process by sensitizing Nsukka community on the implication of waste on man and the environment. From our observation, unsold perishable goods constitutes a larger percentage of waste in the market causing serious environmental degradation especially during the rainy season, as traders avoid the expenses associated with the disposal of these waste. On the average, a trader spends #100 daily, #600 weekly, #2,400 monthly and approximately #30,000 annually to dispose waste, this means that they run on an increasing operating cost.

**SPEAKER 4:** How do we solve this problem and at the same time ensure a sustainable supply of bio waste which is our major raw material? In the course of this project, we noticed numerous raffia baskets left behind by traders after selling the contents of these baskets in order to avoid the stress of bulkiness and cost of transportation. These rejected baskets, we made very useful. How? We collected these baskets and with the permission of the market authorities, placed them at strategic places, making the disposal of this food waste, cost free and more convenient.

**SPEAKER 5:** During this testing phase, the collection vehicle offered to us by the centre, due to the level of our commitment to the project empties the baskets twice weekly and transports it down to the centre for conversion into biogas, biofuel and biofertilizers. Ladies and gentlemen, within 4 months of operation, we were able to recycle 264kg of biowaste., saved the ozone layer by reducing the amount of harmful emissions in our community, created 7 jobs, with each individual earning #6,500 additional income monthly.

**SPEAKER 1:** To ensure sustainability, we plan on partnering with Enugu state waste management authority in collaboration with Enugu state clean team project in designing bio-bin, this way the communities can dispose their bio waste anytime, creating an easy network for waste collection and transportation at anytime with zero cost.

**(Video at Ogige market)**

**SPEAKER 2**: Yes! the market is cleaner now given that the waste has been converted into useful products. Our biogas and biofertilizer for instance.

**(Show them the scrubber)** we designed a scrubber, a device that removes impurities such as carbon dioxide, hydrogen sulfide and ammonia from the biogas. That is, our biogas can now be used to power gas engines

**SPEAKER 3:** The digestate from this process is more eco-frienly when compared to conventional chemical fertilizers. We packaged (Show them) and sold for #2,500 per bag in contrast to the #20000 per bag spent by local farmers in purchasing chemical fertilizers. 10 farmers benefited from this which led to an 80% increase in crop yield reducing the emission of nitrous oxide from the use of chemical fertilizers.

**(Video clip of how triad fertilizer helped increase Chinaza’s crop yield.) 10 seconds.**

**SPEAKER 4:** At this point we discovered a problem that could be solved to promote our objectives. We learnt that Farmers made use of tillage and conventional farming system like stubble burning, destroying the vegetation cover of the soil in Nsukka community. According to the Food and Agriculture Organisation this system has released about 78billion tons of carbon to the atmosphere and is also responsible for soil erosion. **For sustainability**, we partnered with the department of agricultural extension and Nsukka local government area council to train 20 local farmers on the skills of **NO TILL FARMING,** which is a way of growing crops from year to year without disturbing the soil through tillage

**SPEAKER 5:** This technique increases

* the amount of water that infiltrates into the soil,
* the soil retention of organic matter, its cycling nutrients,
* protects the soil from erosion
* and also discourages the growth of weeds.

**La**st month we launched the first trial in 40 acres of land. We trained 20 trainers, for a start we focused on crops like cassava, maize and vegetables. This farming system have proven to increase crop yield by 40-60 percent. In the next two months, in partnership with the department of soil science, UNN and with the use of our bio-fertilizer to complement this system, their crop yield would have increased from 24 bags of grains per acre to 34 bags per acre.

**SPEAKER 1:** Each farmer would have saved an average of **#**20,000, amounting to**#**105,000 in one year and an average of **#**315,000 in three years that would have been used for purchasing chemical fertilizers and tilling the soil. Plans are currently on ground to include innovative irrigation process during off seasons using bamboo trunks, a very simple set up that can enable these farmers harvest all year round, doubling their annual yield.

**SPEAKER 2:** Despite all of this, we were still not satisfied, because we knew that we will not be there forever. This gave rise to our sustainability plan. **“POWER FOREVER”.** We partnered with the national energy research and development center, Mr. Ugwuanyi Anthony a scrape dealer and Yongxing steel a Chinese company, for designing smaller bio-digesters, which we called “THE **POWER BOX”** with the capacity of 40kg for restaurant and households, accompanied with an easy and well detailed manual. We are glad to announce to you that 2 restaurants and 4 household now make use of the power box. The power box costs just #15,000. A onetime investment that saves money for users when compared to other sources of energy. The power box is not just affordable but also durable as this metallic box has a life span of 12-15 years.

**(Beneficiary’s story) akara woman**

**SPEAKER 3:** Being in the early phase of our project, we had a challenge of acquiring funds for mass production. We therefore sourced for funds from alumni of the school, super enactors and well meaning individuals. By November this year with the help of the newly elected school administration already interested in this project, our team plan on embarking on mass production of the power box.

**(Video clip on vc’s inaugural speech about electricity) 12 seconds.**

**SPEAKER 4**: Also plans are on ground to build 2 community sized digesters in one year, that will serve about 500 people, recycling 500 tones of waste, creating 20 new jobs, generating #2,381,000 in revenue. Our No till farming skills, will be thought in 25 schools, in partnership with Enugu state ministry of education to smooth the progress. Esteemed judges, above 300,000 secondary students will be thought this skill from next academic session. And that is sustainability, 300,000+ students to be impacted with life time saving skill.

**SPEAKER 5:** In the words of Mahatma Gandhi, “Be the change you want to see in the world”. And like our team leader, Joseph Chukwunonye would say “hard work is the gate to achievement. This year, Enactus University of Nigeria, Nsukka have taken relevant action in ensuring a better world for you and I. We have taken steps towards **creating affordable and clean energy which is the 5th goal of the SDG** thereby saving our planet and have enabled progress by creating additional sources of income to our beneficiaries.

**SPEAKER 1:** Our journey so far with the aim of creating a sustainable environment have contributed to 13 sustainable development goals.

* Climate action
* sustainable cities and communities

**SPEAKER 2:**

* **affordable and clean energy,**
* good health and wellbeing, zero hunger

**SPEAKER 3:**

* no poverty
* clean water and sanitation

**SPEAKER 4:**

* decent work and economic growth
* industry

**SPEAKER 5:**

* innovation and infrastructure
* reduced inequality

**SPEAKER 1:**

* life below water
* life on land and
* partnerships to achieve goals.

**SPEAKER 1:** Together we have generated **AFFORDABLE AND CLEAN ENERGY**, thereby saving the environment by recycling 132kg of bio-waste, generated over #80,000 worth of income, created 25 jobs in just four months. We have saved our beneficiaries a whooping average of #500,000.Ladies and gentlemen, in the next two years, given our aggressive fund mobilization strategy, we would be able to produce an average of 200 bio-digesters. In fact, we would have penetrated the market so much that the supply of our biodigesters will match its demand empowering over 250 people. In a bid to advance the solution to the energy problem faced in our target community, plans are actively on ground to liquefy the bio gas for easy storage.

**SPEAKER 2:** **We are delighted to say that we have satisfied the Enactus judging criteria.**

**SPEAKER 3:**  **Environmentally**, we have saved our planet by reducing emission of dangerous gas to the atmosphere.

**SPEAKER 4: Economically** we have created 25 jobs, thus adding to the Gross Domestic Product of the nation.

**SPEAKER 5: Socially**,we have promoted a socially viable community through integration, increased participation, enlightenment, and have also improved the standard of living of our beneficiaries.

**SPEAKER 4:** We have effected a change that is **sustainable** and impactful in our community, putting smiles on people’s faces while promoting a greener world. We are passion driven innovative young minds willing to commit our time and resources into enabling progress in our community. We are,

**ALL:** ENACTUS UNIVERSITY OF NIGERIA, NSUKKA!