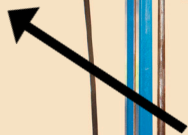


TECH TIMES & BUZZ



The Engine of Change!

Technology is widely appreciated as the engine of change. Amidst nationwide cry about plastic waste and the associated pollution, system cleaning technologies have emerged. At ATC, three closely connected technologies have been developed and are used for effective plastic waste management i.e., Plastic shredder, Extruder and Hydraulic press. With the three machines, plastics are reduced and used as raw materials for making pavers and construction bricks.



TECHNOLOGY DEVELOPMENT AND TRANSFER

Environmental risks dominate the country's risk landscape. These risks include; extreme weather conditions, biodiversity loss, pollution and natural resources shortages among others. In contribution to the urgently needed solution, Appropriate Technology Centre (ATC) prioritizes "SMART" technologies development and transfer. Technologies promoted have the potential to promote circularity, adaptation and check climate change associated impacts. Intentions are based on appreciation that, Technology is the bridge between now and the future we want.



Plastic waste management project has created livelihood opportunities for youth in the neighbourhood especially those that directly pick and sell plastics to the Centre. On average, the centre receives not less than 350kgs from an individual plastic collector weekly. The project is relatively new however, the cost of waste plastic per kilogram is already increasing. On a positive note, littered plastic bottles are becoming scarce in the neighbouring communities.

Sustainable Water Use and Management



ATC is tapping into large volumes of storm water to address crop water requirements in a period of increased vulnerability. Under the project, the low-cost water storage pond technology is promoted to benefit farmers starting with Mukono district.

The technology is constructed on a demand driven basis following sensitisation, willingness to contribute at least 80% of the capital cost and commitment to use the water harvested for agriculture.

In three months, over 186 community people were sensitized about the technology and 08 ponds constructed in Kanyogoga, Namasinda, Bunankanda and Bugoye villages. Beneficiaries are using the water to grow crops such as sukuma wiki, maize, cabbage, tomatoes and beans. Since they are practicing intercropping, farmers also use the opportunity to water their perennial crops such as bananas and

cocoa.

Capacity building is embedded in the project to ensure continuity and sustainability. In the course of project implementation 65 community people were trained on construction, operation and maintenance of the low-cost water pond technology.

Farmers using the pond share positive stories. Mr. Mbalure of Namasinda village is proud of practising un-interrupted farming, even in the hottest month of the year. He revealed how he made a lot of money from selling sukuma wiki off season. It even makes his neighbours envious of him.

The low cost pond technology has attracted high demand because it is affordable and easy to construct.

Perspectives



Zawedde Priscilla, BA. Social Sciences Intern from Makerere University:
 "I have learnt a lot compared to my friends who are doing internship in some other organizations where they are just reading books and making notes. Here at ATC, I have learnt to work with the community, I have learnt how to preserve the environment by repurposing everything which I prior looked at as waste ... All innovations at ATC are simply "wow" for me and surely all students need such an exposing and hands-on experience ... Schools also need to take up ATC technologies especially the bio-enzymes. From my experience, at my former secondary school, toilets would fill up but we continued using them in their sorry state and this was exposing us health risks... magical simple ATC solutions for improved sanitation are what schools need."

Aamon Ahabwe, BS. Civil Engineering intern from Uganda Christian University:
 "ATC demonstrates a menu of technologies with serious focus on environmental protection. The technologies are made from locally available materials accessible to the common person. Besides, these technologies are doable and to me they are the real game changer needed in communities." They look simple but effective solutions for many of the community problems we just need to make them popular.



Bio-enzymes: *The pill for sanitary nuisance!*

Improving sanitation is a priority for development. As a technological contribution, ATC promotes use of bio-enzymes. Bio-enzyme is a locally produced solution that works as a 'pill' for elimination of the sanitary nuisance in pit latrines.

The ATC is carrying out a bio-enzyme technology profiling exercise to inform scale up. Under the project, 20 institutional latrine facilities in Mukono and Kayunga district were enrolled.

Four weeks since project start, preliminary results are promising. All the 20 latrines are reporting; reduced odor, elimination of flies and maggots. 18 facilities had no difference in sludge levels despite continued use of the facility i.e., Miracle World Ministries facility with over 100 users had sludge level static as 10ft.

The two Health Care facilities' latrines had noticeable increase in sludge level. For example for Mukono General Hospital latrine, increased by 0.5ft. For the same facility, we observed non-faecal materials such



The 20 latrine facilities are dosed with bio-enzyme solution on a weekly basis using a ration of 1ltr per six users. Dosing is done by either the caretaker or users under the guidance of a technical person from ATC. These will be studied for a period of one year. The institutions include; schools (13), Health-care Centres (2), police station (1) Town Council (1) and places of worship (2).

as clothes, pampers and other solid objects inside the pit. These non-faecal materials could have a negative effect on technology effectiveness

It is early to make conclusions. Interventions will be continued for more 11 months with the same facilities in effort to concretize findings.

Energy Transition

Biogas presents an affordable and relatively safe energy alternative especially for the vulnerable population segment that may not afford the fairly sophisticated smart energy options like solar.

The ATC embarked on transferring biogas technology to communities through capacity building and technology demonstration. In a period of three months, the project covered six villages in Mukono district i.e., Maziba, Nama, Kanyagoga, Namisinda, Kauga, Ntenjeru and Mpumu village, reaching out to 254 people.

During the exercise, it was clear that

community people had scanty knowledge about biogas and many of them feared the technology for safety reasons. There was a belief that biogas is a dangerously explosive technology that can burn the entire household to ash. However, community engagements organized by ATC presented an opportunity to undo the myth about biogas, pass on positive information and ultimately trigger appreciation.

70% of the people engaged expressed interest to use biogas technology, 28% started securing the required materials in preparation for construction with technical support from ATC. Others promised to seek for technical support as soon as they are ready.



Capacity Building & Exposure learning

ATC is an icon for capacity building and exposure learning to whoever would like to learn/ and acquire a skill or two in all technologies available.

In the gone quarter, exposure learning and hands-on skilling services were offered to; individuals, students in senior six vacation, interns from Uganda Christian University and Makerere University, community people, and organised students cohorts from College of Health Sciences, Makerere University and Uganda Institute of Allied Health and Management Sciences -Mulago.



Try the Tech!



Those interested/willing to use our products and or try different technologies, we offer a variety. Our technologies can be used to address water shortages, water quality and management challenges; improve personal/ and community hygiene and sanitation in complex situations;

improve environmental management and resource use; support sustainable agriculture and just energy transition. The products stand out because of their uniqueness, special appeal to mother nature and affordability. Besides, they can be delivered at your convenience.

The Banana Pseudo Stem: *Money thrown to rot!*

Banana is a crop grown by over 75% of the farmers in Uganda. However, only the fruit is considered a precious delicacy. After harvesting, the pseudo stem is thrown to rot as waste. The part thrown as waste has a low composting rate and in the process of decomposition it releases Green House Gases, polluting the environment.

Truth be told, the banana fruit accounts for not more than 20% of the benefits of the entire plant. The 80% thrown away as the pseudo stem is discarded is money thrown to rot and this practice ought to change.

To raise awareness and boost harnessing of the other benefits from banana plant, ATC demonstrates recovery of fibre, production of carpets and sanitary pads from banana pseudo stem. The project has been taken to schools to skill and build capacity of the young/future generation.

