

# NSTC-NTBC disburses K11.3m in grants

JANUARY 18, 2022, will forever be a memorable event for 21 local innovators, youths and researchers dotted across different parts of the country.

This is because it was on this day when the successful applicants were awarded grants by the National Science and Technology Council (NSTC) and the National Technology Business Centre (NTBC) at a joint award ceremony in Lusaka.

Speaking during the event, NSTC Acting Executive Secretary Guess Mugala said the council has under the Strategic Research Fund (SRF) funded 10 projects in the range of over K200,000 and over K800,000 each, while four youths received K250,000 each under the Science and Technology and Innovation Fund (STYIF).

A total of over K8 million was disbursed for both the SRF and STYIF. MrMugala said the NSTC has been administering research grants since 2008.

NTBC Chief Executive Officer ChitunduKasase said over 90 applications were received while 11 were shortlisted, with seven entrepreneurs emerging as winners. Out of the successful applicants under the Technology Development Business Fund (TDBF), four were women while three were men.

They each received cheques ranging from K450,000to K500,000. The total grant disbursed was over K3.4 million.

DrKasase said the NTBC had targeted innovations in non-alcoholic beverages. He urged the beneficiaries to utilize the resources efficiently.

Technology and Science Minister Felix Mutati said entrepreneurship has the capacity to create over 10,000 jobs.

MrMutati said the Government is in a hurry to rebuild the economy and has, therefore, budgeted to increase the grants to over K26 million in this fiscal year.

In the SRF category, among the winners was a team led by University of Zambia (UNZA) School of Medicine Lecturer DrLavinaPrashar

who intend to carry out research on phytochemical and pharmacological evaluationof tinosporacaffra for its anti-malarial properties. Copperbelt University (CBU) Lecturer Dr Victor Bowa wants to conduct a study about mining activities in the country.

A group of researchers from Kitwe’s Mukuba University want to develop a plant-derived bio-pesticide for aphids and Fall armyworms in Zambia. MrMichealKapembwa, from NISIR, and his team want to research into the production of plastic sand bricks from waste plastic.

They want to add value to plastic waste by producing plastic-sand bricks of various properties that suit different applications and usage. MwiingaMuluube from Zambia Agriculture Research Centre (ZARC) based at Misamfu Research Centre wants to research on pre-breeding of common beans for resistance to common bacterial blight.

MrMulube wants to determine the incidence and severity of common bacterial blight in major bean growing areas. In the Technology Development Business Fund awards under NTBC, Joyous Mumm Food Processors have realized the nutritional status in the country’s population, particularly the young and the old by coming up with a range of nutritious cereal meals to be consumed as porridge.

A couple, Mr and MsMukwasa, are the founders of Reyna Foods who were also awarded a grant in the same category during the event.



They saw a gap in the Zambian market for nutritional products for young children and

families. So, they looked at an opportunity to fill this gap since there are few

affordable, convenient and ready to eat, locally produced nutritious foods in Zambia.

As founders of Reyna Foods, the couple has developed a proprietary blend of soya, wheat, millet, popcorn and pumpkin seeds foran instant porridge product.

The product comes in a 300g packets.

They believe this product will help address the impact of malnutrition in the country.

Annie Katengula-Mwandira of Mufumbwe district, is another recipient

of a grant. MsMwandira has come up with a product called SupaMudyoli Mix, which is a ready-mix relish innovation.

Michelo and Choolwe Mwanza want to be producing chocolates on the Zambian market after realizing that most of the products are mostly imported and expensive.

The pair wants to be providing affordable, high quality, nutritional value locally produced chocolates.

Under the STYIF, Bright Bwalya has come up with

a device called Seizure Assistant.

The device allows patients to call for help when they are in need.

The Seizure Assistant will help in the provision of proper first aid to patients, educate the general public about epilepsy, eradicate myths and fight stigma surrounding epilepsy.

George Pule, a youth from Lusaka’s Evelyn Hone College, wants to come up with a Vent Splitting Device (VSD).

Pule said the COVID-19 pandemic respiratory illness

has resulted in an increased need for ventilators, hence together with his team,he wants to develop a cost effective ventilator sharing device using open source materials.

The device will help mitigate the ventilator shortage in the country.

The recipients of the various grants promised to use the funds prudently.

Four journalists, including the author, were also awarded for their contribution to the growth of science and technology in Zambia through story-writing.

## Your goal achievement is 90 p.c. mental, 10 p.c. physical

AMINU Waziri writes, ‘Although physical effort is a necessary element of success, the most significant asset we could ever use to realize our destiny is our mind. If the mind can think productively, the body will automatically follow to accomplish our design. The mind power can propel you to accomplish almost any goal you desire.’

Thinking often involves talking to yourself and creating a picture of what you are thinking about in your mind.

This process is called visualization.

To visualize is to imagine, create and see a clear and vivid picture, or thought, in your mind of yourself enjoying in your goal *already* achieved and feeling happy.

Visualization is creative thinking.

The longer you visualise, the stronger your thought becomes.

When your thought is mixed with your conviction, your subconscious mind accepts and begins to bring it to reality.

Creative visualisation is strongly and widely believed to possess great power that one can always apply to achieve one’s own goals.

In 1967, an Australian psychologist Allan Richard conducted a study to actually test the real power of imagination or visualisation.

He divided basketball players into three groups.

Group one practiced physically, on the basketball court, free



basketball throwing for 20 minutes every day.

Group two only imagined or visualised, while seated in their chairs in a room, making free basketball throwing for 20 minutes every day.

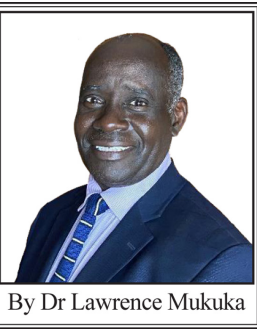
Group three was the control group. It was exempt from taking any action.

Astonishingly, the results showed that group two, which only imagined or visualized, was almost as good as group one which practiced physically.

The study concluded that visualisation, with conviction, has super-colossal powers.

Father of American psychology William James wrote, ‘The subconscious mind will bring about any mental picture when it is supported by strong belief. The easiest way to formulate an idea and eventually bring it to pass is to “visualise” it in the mind’s eye. Hold a mental picture of what you want, day and night and believe in it until it becomes a reality in your life.’

The longer you visualise, the stronger your thought will become. In 1989, Dr David Spiegel of Stanford University conducted a



By Dr Lawrence Mukuka

study of 86 women in their late stage of breast cancer. They were divided into two groups.

Group one received only prescribed medical care.

Group two received additional support sessions, in which the women positively visualised how to cope with their illness and eventual recovery.

The study found that women in group two survived twice as long as those in group one. Visualisation generates *positive feelings* that really attract success.

World class athletes visualise themselves achieving their goals.

Phelps is a retired US competitive and the most decorated Olympian swimmer of all time.

He has won the highest number of medals in the whole Olympics.

He holds 22 medals, including 18 gold medals.

His coach Bob Bowman, included *Guided Mental Imagery* in his mental training.

He instructed Phelps to watch a *mental movie* of his races every day before he went to sleep and soon after he woke up.

Phelps visualised every aspect of swimming,

starting from the beginning to the celebration-sensation after victory.

In his book *Beneath The Surface*, Phelps admits, ‘When I’m about to fall asleep, I visualise to the point that I know exactly what I want to do: dive, glide, stroke, flip, reach the wall, hit the split time to the hundredth, then swim back again for as many times as I need to finish the race.’

Your subconscious mind is very sensitive to suggestion at these two special times.

As your subconscious mind works night and day, it would be working on your visualisation while you are asleep.

Bowman strongly believes that visualisation is what significantly helped Phelps to develop the *habit of success*.

Michael Phelps is a living proof of what visualisation can really do.

After winning the Olympic gold medal in Spain in 1992, Linford Christie said, ‘The Olympics is the pinnacle of every athlete’s career. They said I was too old but I did it. I had practiced in my mind and saw myself do it.’

Visualisation helps you to win, first, in your mind before you win in reality.

In 1991, after failing to win the world championships, Sally Gunnell began to visualise herself winning an Olympic gold medal.

She visualised sprinting and hurdling every day.

In the following year, she won the 1992 Olympic Gold medal.

Now she says, ‘Winning gold was 70 per cent

mental.’

Visualisation overpasses any barrier to your goal.

Every successful visualisation involves all the senses (i.e., *seeing; hearing; touching; smelling and tasting*).

Visualisation quickly turns a thought into a habit.

Once a habit, your subconscious mind accepts and acts on it.

Politicians also apply visualisation to win elections.

Joyce Banda vividly visualised in her own mind achieving her dream.

Former president of Liberia Ellen Johnson Sirleaf writes, ‘The size of your dreams must always exceed your current capacity to achieve them. If your dreams don’t scare you, they aren’t big enough.’

In 2012, Banda became Malawi’s fourth president. She says, ‘Dreams that come to pass are those in colour.’

President of Tanzania Julius Nyerere visualized himself, with conviction, for 12 years, from 1950-1962, to become the first president of Tanganyika.

All successful men and women are big dreamers.

Lyndon Johnson visualized himself as US president for 43 years from 1920, aged only 12. In 1963, at 55 years old, Johnson finally became the 36<sup>th</sup> US president.

Constantly hold the mental picture of your goal until you achieve it.

Manuel Quezon visualised himself, with

conviction, becoming the first president of the Philippines Island 24 years before he was actually sworn in, in 1935.

Successful people start from visualisation.

Great writers too apply visualisation to succeed.

NgugiwaThiongo of Kenya applied visualisation to survive.

When he was imprisoned in 1977, he visualised freedom for himself.

Later, he said, ‘There’s faith and hope in the imagination of a different future and possibility of a better tomorrow.’

Visualisation is very effective in setting and achieving your goals.

David Seidler visualised himself healed from bladder cancer of many years.

Before the operation, he applied vivid visualisation of his healthy bladder, with strong conviction. During pre-surgery tests, his doctors found him completely healed.

Like most highly competitive sports, setting and achieving your goal is also *90 per cent mental and 10 per cent physical* because your life is 90 per cent subconscious.

Your *body* is a servant of your *mind*, a servant of your spirit, the boss.

Visualise your goal constantly, with your conviction, until you achieve it.

***The author is a specialist in positive mind-set change. Email: positivemindpower1511@gmail.com.***

# KGRTC gets centre of excellence status

By MUSONDA MANGILASHI THE establishment of centres of excellence is one of the approaches Government is using to boost quality Technical Education, Vocational and Entrepreneurship Training (TEVET).

Centres of excellence are places where exceptional quality training takes place to provide skilled human capital for both the public and private sectors.

The centres promote collaboration and provide best practices, research and development, support and training in priority skills areas in the country.

Quality education and skills development are cardinal to make the country a competitive investment destination and an efficient productive hub in the region.

Kafue Gorge Regional Training Centre (KGRTC) is one of the first TEVET institutions to be conferred with the centre of excellence status in Zambia.

The centre, which was established in 1989, provides competitive solutions in hydro power and related fields in electricity utilities in the Southern Africa Development Community (SADC), the Sub-Sahara region and beyond.

The award of the centre of excellence status is a new strategy under TEVET to uplift institutions competently under an excellence desired and authenticated tag.

The recognition comes at the right time when KGRTC is investing in renewable energy, energy efficiency and regional energy integration.

The centre has been providing training recognised in the SADC region and attained recognition as a centre of excellence by the Association of Power Utilities in Africa (APUA).

During the launch of recognising KGRTC as ‘Centre of Excellence’



• KAFUE Gorge Regional Training Centre Director Kaela Siame explains the operations of the institution to Science and Technology Minister Felix Mutati recently. Picture by MUSONDA MANGILASHI

in TEVET and also to register the facility as the first institution to qualify to be a centre of excellence.

Science and Technology Minister Felix Mutati said the Government has put a high premium on quality education and skills for enhanced employability and entrepreneurship, job creation and youth empowerment.

He said the key to building appropriate skills relies heavily on the quality of training provided.

Mr Mutati is hopeful that KGRTC, being the first to receive the centre of excellence status under the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) in the country, would continue to be an excellent avenue for skills development

and research, as well as development for the energy sector.

He said the move indicates that the centre’s provision of training is appreciated and recognised not only in Zambia but abroad.

Mr Mutati urged TEVETA to continuously remain firm on assessments towards institutions’ elevation to centres excellence status based on demonstrated quality training competence outputs and quality infrastructure.

“Your investment has kept the Zambian power system intact. It has assured its integrity.

We have to rebuild the economy. We have to create jobs. We have to make lives better for our people and the only way we can do this is by investing in technology,

investing in competencies, investing in things that set you apart,” he said.

Mr Mutati urged KGRTC to further invest in research and development to contribute to the promotion and creation of a culture of research and innovation.

The Science and Technology minister said the Government remained committed to ensuring that institutions of learning in TEVET are strengthened in order to provide quality training.

Mr Mutati said to achieve quality education in higher learning institutions, there is need for laboratory infrastructure development, infrastructure upgrading, quality assurance and improvement of financing.

He said this strategic area addresses the need to develop human capacities,

specifically their ability to acquire quality skills and competencies.

It also addresses the need to attain the desired human capital development by building inclusive and appropriate skills that respond to the demands of the labour market.

“I also wish to commend KGRTC for providing training in energy related technologies since its establishment in 1989, and I believe it is this level of commitment in aligning the institution to fast changing technology that will attract further investments and support to the institution,” he said.

Mr Mutati commended the international community, including the Swedish International Development Agency (SIDA) and the International Labour

Organisation (ILO) for the cooperation and support rendered to Zambia over the years, especially the energy sector.

TEVETA Director General Cleophas Takaiza said promotion of skills and development is key to meeting demand in the labour market and remain a vehicle for improved skills efficiency for industrial activities.

Mr Takaiza said quality education and skills development are cardinal to making Zambia a competitive investment destination and an efficient productive hub in the region.

He said KGRTC would closely work with industry to spearhead best practices, research and development, as well as provide training in priority skills areas.

He is optimistic that

through centres of excellence, the sector would be able to raise standards of skills training and boost production in specific sectors that require highly specialised skills.

Mr Takaiza said KGRTC would now become a model of best practices in energy training.

He said KGRTC is the first training centre to qualify as a centre of excellence on TEVETA records based on employed intensive assessments that attracted inclusive and broad consultation multi-sectoral players.

“KGRTC is not only a renowned centre but a faculty to supply exceptional quality skilled human capital for both the public and private sector. TEVET sector will raise standards of training as the elevated KGRTC now a model of a successful journey and attainment of a centre of excellence status,” he said.

Zesco Human Resource Director Maxwell Saya expressed happiness that KGRTC has been recognised as a centre of excellence and that it has continued to attract participants across the board.

Mr Saya said the centre has continued to grow in excellence.

For instance, in February, 2016, KGRTC was recognised by APUA as a centre of excellence in Africa.

He said the growth of an institution is attributed to cordial collaboration with various stakeholders such as academia, the industry and other stakeholders in the provision of quality training.

He said the centre has continued to invest in the growth of the infrastructure and equipment of enhanced and specialised training.

“This recognition comes at the right time when KGRTC is embarking on investing in renewable energy, energy efficiency and regional energy integration,” he said.

Mr Saya said in the quest

for enhanced growth, his organisation has prioritised sustainability of investment by implementing various projects that focus on renewable energy and supportive infrastructure.

He said some of the key projects include skills for energy in Southern Africa, which is being implemented in conjunction with ILO and Swedish International Development Agency (SIDA), the 7.5 megawatts (MW) wind energy power project in Nakalundu; and a solar energy project, which is being done in conjunction with the Rural Electrification Authority (REA) and the Ministry of Energy.

The solar project led to the commissioning of the 45 kilowatts (kW) Kawambwa Solar Mini Grid in Serenje.

“We also have small hydro projects being constructed under the Kafue Gorge Power Project in the capacity of 13MW,” he said.

Mr Saya said the projects are important for sustainability because they will help the centre to meet its needs without sacrificing the needs of future generations.

Additionally, the projects would guarantee that quality training is provided and enhance competencies and equip learners with a better understanding of new and advanced technologies.

Chikankata Member of Parliament Jacqueline Sabao congratulated KGRTC for the recognition which she said is a great achievement.

Ms Sabao urged the institution to continue working hard and put the district on the map.

She appealed to the KGRTC management to consider the local people in its job opportunities.

“This investment is sitting in this constituency, but when you go out there, the people in Chikankata are the poorest, hence the need for management to consider the locals,” she said.