



REPORT OF INNOVATION/START-UPS COMMITTEE

MEMBERSHIP OF COMMITTEE

1. Nick Agule - Chairman
2. Dr. Marija Lovric - Member
3. Mrs Hembadon Diaka - Member
4. Dr Mark Varem Ayaka - Member
5. Mr Terdoo Ikpanor - Secretary

TERMS OF REFERENCE AND WORK ACCOMPLISHED

i. Set up selection criteria/guidelines for the scheme

The Committee produced a selection criterion built around 13 questions as follows:

1. Strategic fit: Illustrate how your innovation idea aligns with CEFTER's strategic direction, vision and mission
2. Potential resource requirements: Explain the availability of the resources (potential and actual) required to execute the innovation idea and the local content
3. Desirability: Describe the market (potential or actual) for the innovation idea
4. Feasibility: Catalogue the technologies and capabilities you have or is needed to implement the innovation idea and their availability and accessibility
5. Cashflow: Set out the commercial case for the innovation idea. How long will it take to achieve break-even and achieve profitability? provide a cashflow statement if available.
6. Originality: Is the innovation idea original or an improvement over an existing concept? please elucidate in detail.
7. Investment vs Impact: Detail the potential impact vis a vis the costs to implement the innovation idea
8. Simplicity of design concept: Describe the ease or difficult to implement innovation idea
9. Market access: What percentage of the population will have access to the innovation idea? describe the marketing approach to access the market with your innovation idea.
10. Environmental impact: Has an Environmental Impact Assessment been performed for the innovation idea? provide a report if any
11. Sustainability: Describe the future benefits of the innovation idea and the positive changes it will bring to the food and agricultural sector
12. Culture: Narrate the cultural impact of the innovation idea and how it affects the way of life of the people



13. Risk Management: Discuss the envisaged risks to the design, development, delivery and implementation of innovation idea and the mitigation factors to manage the risks

ii. Advertise/call for submission of proposals

The committee developed application guidelines and broadcast message as follows. The call for entries was advertised by CEFTER on various platforms:

CEFTER INNOVATION COMPETITION - CALL FOR ENTRIES

INTRODUCTION

The Centre of Excellence for Food Technology and Research (CEFTER) was established by the Benue State University (BSU) with the support of the World Bank to address the challenges of post-harvest losses and other technologies in the food value chain. The Centre adopts multidisciplinary approaches to embark on high-capacity building through teaching, conduct of cutting-edge research and promotion of active outreach programmes to address post-harvest food losses and other agro based challenges.

INNOVATION COMPETITION

In furtherance of its mandate, CEFTER announces a competition for innovation ideas in the fields of:

- 1) Post-harvest losses
- 2) Food science and technology,
- 3) Food processing and other related areas.

Applications will be assessed on a set criteria including:

- a) Strategic fit to CEFTER's objectives,
- b) Originality,
- c) Feasibility,
- d) Cash flow projects,
- e) environment impact etc.

Successful applications will attend a bootcamp in Makurdi which will further horn and focus the ideas. Funding will be provided to successful applicants to assist with the implementation of the innovation ideas.

METHOD OF APPLICATION

Applicants with any innovation idea in the areas highlighted above are to fill the Google form using the link below to enter the competition.

Closing date for receipt of application is Wednesday, 30th November 2022.



CENTRE FOR FOOD TECHNOLOGY AND RESEARCH
BENUE STATE UNIVERSITY, MAKURDI

All enquiries relating to this competition are to be sent to this email contact: infoenquiry@cefterbsu.edu.ng

To know more about CEFTER click on www.cefterbsu.edu.ng

iii. Consider and shortlist applications

The committee received 5 applications and met twice virtually and considered, ranked (using the 13 questions as guides) and shortlisted the applications with the following results:

RANK	PROPOSAL	NAME OF CANDIDATE	TOTAL SCORES
1 st	The processing of cassava roots into high quality cassava flour (HQCF) involves peeling, washing, grating, pressing, disintegration, sifting, drying, milling, screening, packaging and storage. High quality cassava flour (HQCF) is simply unfermented cassava flour. It is used as an alternative to wheat flour for many bakery and pasta products. HQCF include raw materials for the production of glucose syrups, industrial alcohol and many bakery and pastry products likes cakes, doughnuts, chin-chin, bread etc.	Sefa Veronica AONDOWASE	224
2 nd	FISH FEED PRODUCTION The production of fish feeds using Agricultural waste will help to encourage fish production within Benue State. Basically we use Agricultural waste to formulate our feeds using a scientific feed formulation formula (Pearson square method). Protein materials, watermelon seed to replace soyabean. Blood from our local abattoir and processed using heat from fire. Groundnut waste from our ground producers. Energy materials. Corn offer from local farmers cassava from our local farmers Rice bran from the rice mills. Micro and Macro Nutrients From organic sources and some from synthesized companies. This basically to help reduce the cost of purchasing fish meal, blood meal and soyabean due to its current price in the market.	Mhambe Sesugh SOLOMON	208
3 rd	The proposed innovation idea is targeted at mitigating postharvest losses of inorganically grown horticultural fruits (Mango and Okra Fruits) using preservatives such as 1-methycyclopropene (1-MCP) and Propolis. There have been efforts to create techniques that can extend fruit's storage life. 1-MCP has been certified to have a harmless mode of action and is chemically comparable to naturally occurring chemicals. Again, the use of Propolis, whether alone or in combination with other treatments, has been found to extend the shelf life of fresh horticultural	Iveren Blessing IORLIAM	199



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RANK	PROPOSAL	NAME OF CANDIDATE	TOTAL SCORES
	produce. Generally Recognized As Safe (GRAS) products, such as Propolis, are an environmentally friendly option for suppressing harmful germs.		
4 th	<p>Yam (<i>Discorea spp</i>), a tropical perennial crop cultivated mainly for its edible tubers is a staple food consumed worldwide and provides much economic benefit to the producers. There is a supply gap identified in yam due to the expanding population of the Nigeria which is estimated to be 200 Million and will continues to grow at 3.5% per annum. Postharvest losses in yam tubers contributes greatly to the supply gap since much yam produce got rotten right from the farm. Yam flour will not only provide healthy food for the country but also bust the economic condition of Nigeria and improve the living standard of farmers. This will create jobs for a common man. Yam flour production is a pressing issue for many Nigerian businessmen. There are two yam flour; Yam flour and Yam instant pounded yam flour. The process is almost the same except that the later needs to be boiled while the former, boiling is replaced by blanching. This business will focus on both methods but most especially on the one with high demand. The process of producing instant yam flour involves peeling, slicing, parboiling, drying and milling of the product to yield flour. The machinery and equipment required for production can be sourced locally or from abroad, and they include; Yam slicer, yam parboiler, hammer mill with cyclone, industrial nylon sealing machine and a weighing machine.</p>	Vegema David ILIAMVE	187
5 th	<p>I am proposing a feed mill in Benue state situated in the North Central of Nigeria that could service much of the domestic market of South East and South-South livestock producers while also being strategically positioned to export quality and price – competitive compound animal feeds to sub-Saharan African countries that are well within Nigeria definitive market catchment area given a large number of grains available in the region, road access, etc. The project envisages the establishment of a plant with a production capacity of 30,000MT of compound livestock feeds per annum. This project, therefore, is to establish a new animal compound feed manufacturing facility, capable of producing ruminant feed (feed for cattle) and monogastric feed(feed for pig and chicken) on two separate production lines (dualistic concept), in an efficient and cost-effective way, capable of addressing all current deficiencies in the country's livestock feed</p>	Terseer	169



RANK	PROPOSAL	NAME OF CANDIDATE	TOTAL SCORES
	industry and a way of preventing post-harvest losses hence these feeds will be derived from wastes food from post-harvest which will not be preserved. Also, for instance, Cereals and cereal by-products: Cereals in the feed may include wheat, corn, sorghum, barley, or rye.		

iv. *Conduct training support for shortlisted applicants*

The committee did not work on this term of reference because further directions from CEFTER Management indicated that the training support (boot camp) will take place after the committee has made recommendations of suitable candidates.

v. *Launch competition package*

This is to be planned and executed by CEFTER Management

vi. *Select successful candidates for award of start-up grant*

The committee deliberated on the results as tabulated under the shortlist of applications in paragraph (iii) above. The candidates that ranked 1st and 2nd were compared with each other in terms of the innovativeness of their proposals. The committee voted unanimously that the 2nd ranked proposal on production of fish feed using watermelon seeds and animal blood harvested from abattoirs was more innovative than the 1st ranked proposal for the production of cassava flour which is more commonly available using various production means from the crude rudimentary to more sophisticated systems.

The committee therefore recommends the 2nd ranked proposal first and the first ranked proposal as second. The committee further recommends the remaining 3 proposals in the order ranked for boot camp and possible selection for awards within the limits of the budget provided by CEFTER.

RECOMMENDATION

RANK	RECOMMENDATION FOR BOOT CAMP AND AWARD	PROPOSAL	NAME OF CANDIDATE	TOTAL SCORES
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2 nd	1 st	<p>FISH FEED PRODUCTION</p> <p>The production of fish feeds using Agricultural waste will help to encourage fish production within Benue State. Basically we use Agricultural waste to formulate our feeds using a scientific feed formulation formula (Pearson square method). Protein materials, watermelon seed to replace soyabean. Blood from our local abattoir and processed using heat from fire. Groundnut waste from our ground producers. Energy materials. Corn offer from local farmers cassava from our local farmers Rice bran from the rice mills. Micro and Macro Nutrients From organic sources and some from synthesized companies. This basically to help reduce the cost of purchasing fish meal, blood meal and soyabean due to its current price in the market.</p>	Mhambe Sesugh SOLOMON	208
3 rd	3 rd	The proposed innovation idea is targeted at mitigating postharvest losses of inorganically grown horticultural fruits (Mango and Okra Fruits) using preservatives such as 1-methycyclopropene (1-MCP) and Propolis. There have been efforts to create techniques that can extend fruit's storage life. 1-MCP has been certified to have a harmless mode of action and is chemically comparable	Iveren Blessing IORLIAM	199



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4 th	4 th	Yam (<i>Discorea</i> spp), a tropical perennial crop cultivated mainly for its edible tubers is a staple food consumed worldwide and provides much economic benefit to the producers. There is a supply gap identified in yam due to the expanding population of the Nigeria which is estimated to be 200 Million and will continues to grow at 3.5% per annum. Postharvest losses in yam tubers contributes greatly to the supply gap since much yam produce got rotten right from the farm. Yam flour will not only provide healthy food for the country but also bust the economic condition of Nigeria and improve the living standard of farmers. This will create jobs for a common man. Yam flour production is a pressing issue for many Nigerian businessmen. There are two yam flour; Yam flour and Yam instant pounded yam flour. The process is almost the same except that the later needs to be boiled while the former, boiling is replaced by blanching. This business will focus on both methods but most especially on the one with high demand. The process of producing instant yam flour involves peeling, slicing, parboiling, drying and milling of the product to yield flour. The machinery and equipment required for production can be sourced locally or from abroad,	Vegema David ILIAMVE	187



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		and they include; Yam slicer, yam parboiler, hammer mill with cyclone, industrial nylon sealing machine and a weighing machine.		
5 th	5 th	<p>I am proposing a feed mill in Benue state situated in the North Central of Nigeria that could service much of the domestic market of Southeast and South-South livestock producers while also being strategically positioned to export quality and price – competitive compound animal feeds to sub-Saharan African countries that are well within Nigeria definitive market catchment area given a large number of grains available in the region, road access, etc. The project envisages the establishment of a plant with a production capacity of 30,000MT of compound livestock feeds per annum. This project, therefore, is to establish a new animal compound feed manufacturing facility, capable of producing ruminant feed (feed for cattle) and monogastric feed(feed for pig and chicken) on two separate production lines (dualistic concept), in an efficient and cost-effective way, capable of addressing all current deficiencies in the country's livestock feed industry and a way of preventing post-harvest losses hence these feeds will be derived from wastes food from post-harvest which will not be preserved. Also, for instance, Cereals and cereal by-products: Cereals in the feed may include wheat, corn, sorghum, barley, or rye.</p>	Terseer	169



- vii. Any other ancillary matters that may be germane to the success of the assignment
1. The committee suggests that 5 weeks is inadequate for a thorough execution of the selection process from conception to recommendation. The committee did not deliver the project in time because more time was needed to advertise the call for entries.
 2. The committee is of the opinion that the award/prize be augmented, and the award value be included in the broadcast message to attract more entries.
 3. The committee commends the Management of CEFTER for the concept and advises that it should be made sustainable to become a leading innovation competition in sub-Saharan Africa.
 4. The committee recommends that the Management of CEFTER undertake follow-up of selected innovation proposals in order to mature them to secure financing for future development.
 5. The committee urges CEFTER Management to increase capacity building through marketing activities to boost the entrepreneurial spirit at the Benue State University.
 6. The committee recommends that CEFTER Management organise workshops with topics such as - how to prepare project proposals, how to establish a company, how to spin-off or start-up – to further develop competencies of innovators in seeking project financing.

END OF REPORT

DATE: Friday, 31st March 2023