



GENERAL INFORMATION

1. I DON'T KNOW MUCH ABOUT CASSAVA OR EVEN AGRICULTURE. CAN I APPLY?

Yes! We are seeking innovations from any field that can be successfully applied to increase the shelf life of cassava in Nigeria. And so, it doesn't matter if your organization is focused on cassava genetics in Nigeria or on robotics in Iceland, if you think you have a solution that is relevant, we want to see it. Please make sure that you have read the eligibility requirements, which can be found in the 'eligibility' section of the website and in the [Guidelines](#) and [Official Rules](#), to ensure compliance and to position yourself for success. All applicants must agree to the Official Rules in order to submit an application.

2. WHEN IS THE APPLICATION DEADLINE?

Applicants must submit an initial application in the form of a short concept note by July 08, 2016 at 11:59 pm (ET). Further detail is included in the [Guidelines](#) and [Official Rules](#). If later invited to submit a full application, applicants must do so by August 26, 2016 at 11:59 pm (ET).

3. WHAT IS THE MOTIVATION FOR THE CASSAVA INNOVATION CHALLENGE?

The Rockefeller Foundation's YieldWise Initiative aims to reduce food loss in various agricultural value chains by 2030, and focuses on Nigeria, Kenya and Tanzania. The initiative has selected cassava as one of its focus crops in Nigeria, given its importance to the livelihoods of millions of smallholder farmers and their families and the significant amount that is lost due to spoilage. Unlike our current work to reduce, for example, mango loss in Kenya, where we are working with several actors at various stages of the value chain, we identified cassava's short shelf life as one of the most critical bottlenecks that must be addressed in order to reduce loss significantly.

4. WHY ARE YOU USING A CHALLENGE TO ADDRESS THIS ISSUE?

Challenges provide a competitive mechanism to surface impactful solutions in a short time frame. There are several reasons for this. Firstly, they encourage both incremental and transformative innovations by promoting riskier and more radical solutions than the market would otherwise support. Secondly, they allow donors to leverage global knowledge by drawing in unexpected solutions that they may not have anticipated. Thirdly, they can encourage financial sustainability if, like this Challenge, they focus on drawing out commercially viable solutions. Finally, they encourage effective partnerships by bringing together donors, governments and private sector actors to solve critical development challenges. It is also a signature approach of The Rockefeller Foundation.

FREQUENTLY ASKED QUESTIONS

5. WHY ARE YOU FOCUSING ON CASSAVA?

Cassava is critical to food security in Africa, acting as the main source of nutrition for approximately half of the continent's population, or 500 million people. Further, cassava is a major source of income for rural communities: more than half the world's cassava, an estimated 158 million tons, is produced annually by small holder farmers in Africa.

Despite the crop's importance, massive amounts of cassava are spoiled each year. In Nigeria, the largest producer on the continent – accounting for 20 percent of all production, or 53 million tons – the problem is particularly acute. In Nigeria alone, it is estimated that 40 percent of total cassava produce is lost due to spoilage. Put another way, almost half of the country's output is completely wasted, leading to large foregone opportunities in farmer income and rural socioeconomic development.

The Challenge seeks to significantly reduce cassava spoilage in Nigeria. Reducing spoilage has the potential to increase smallholder farmers' incomes (cassava is mainly farmed by smallholder farmers) and increase the efficiency of the entire cassava industry, while providing greater access to nutrition to the Nigerian people. Addressing the problem of food waste through reducing spoilage will also positively impact the global economy and will increase our ability to address climate change.

6. HOW DO YOU DEFINE THE TERMS 'SPOILAGE' AND 'SHELF LIFE'?

Spoilage occurs when cassava is rendered unsaleable due to physical deterioration following harvest. Shelf life is defined as the time it takes for cassava to become inedible due to this physical deterioration.

Cassava's short shelf life is the primary contributor to high rates of spoilage. The primary driver of this short shelf life is the biology of the root itself. If left unprocessed, cassava spoils in 24-72 hours. Separation from the main stem through harvest causes changes to the flesh of the storage root. Blue-black and brownish lines begin to appear in the flesh in as little as 24-72 hours. This is the result of a wound response involving a range of enzymes and oxidative processes that lead to accumulation of secondary metabolites in the vascular tissues, which then show the symptoms of deterioration. This process is referred to as Post-harvest Physiological Deterioration (PPD).¹

Other factors can also shorten shelf life. Because cassava itself deteriorates so quickly, it is vulnerable to various inefficiencies and poor practices along the value chain – for example, poor handling that damages the root and leads to quicker PPD.

¹ Reilly, K., R. Gomez-Vasquez, H. Buschman, J. Tohme, and J. R. Beeching (2003). Oxidative stress responses during cassava post-harvest physiological deterioration. *Plant Molecular Biology* 53: 669–685, 2003.

FREQUENTLY ASKED QUESTIONS

7. WHAT ARE SOME OF THE CHALLENGES IN THE CASSAVA VALUE CHAIN?

The shelf life issues in Nigeria stem from some of the following barriers along the value chain:

- **Limited access to existing cassava varieties.** Though varieties that extend shelf life do exist, farmers lack access to/knowledge about them
- **No or limited preservation between harvesting and processing.** Poor and inefficient handling, storage and transport either damages roots or leaves them exposed to the elements
- **Far-away processing.** Processors are far from cassava farms and use inefficient manual peeling, allowing more time for root to spoil

More information on the cassava value chain and the main drivers of spoilage can be found [here](#).

ENTRANCE

8. WHO IS ELIGIBLE TO PARTICIPATE?

The Rockefeller Foundation Cassava Innovation Challenge is open to all organizations, whether for-profit or not-for-profit, including governmental and inter-governmental organizations. Collaborations between organizations are encouraged. In the case of such collaboration, the application should be made by a single organization (the 'lead applicant') who would then subcontract part of the award to its collaborators (see [Official Rules](#) for more information).

9. DOES MY ORGANIZATION HAVE TO BE BASED IN NIGERIA TO APPLY?

Organizations do not have to be based in Nigeria to be eligible.

10. DO I HAVE TO IMPLEMENT MY SOLUTION IN NIGERIA?

For this Challenge we are seeking solutions that address the causes of high cassava spoilage in Nigeria, given Nigeria's importance as the leading global cassava producer. While we recognize that some solutions are designed for other markets or contexts and may not have been implemented in Nigeria, implementation in Nigeria needs to occur after the award is granted. Over the two year period of the award, applicants can identify and work with partners based in Nigeria in order to implement the solution. Please read our Official Rules for more information.

11. MY SOLUTION AIMS TO ESTABLISH A COMMERCIAL CASSAVA PROCESSING FACILITY OR EXTEND THE SHELF LIFE OF GARI, CAN I APPLY FOR THE CHALLENGE?

While we appreciate that there are diverse commercial uses of processed cassava, the Challenge is open to innovative solutions that extend the shelf life of raw cassava and tackle the issues that lead to post-harvest spoilage of the root. Please read our [Overview of the Cassava Value Chain](#) for more information about the issues that cause spoilage and ideas for potential solutions.

FREQUENTLY ASKED QUESTIONS

12. IF I HAVE RECEIVED PREVIOUS AWARDS / PRIZES FOR THE SOLUTION THAT I AM SUBMITTING, AM I ELIGIBLE TO APPLY?

Yes.

13. CAN I SUBMIT MORE THAN ONE ENTRY?

Yes. Applicants can submit more than one entry. Each application should be for a unique solution. The degree of similarity of solutions will be evaluated at the sole discretion of the judges.

14. CAN I APPLY IF MY FUNDING NEED EXCEEDS THE MAXIMUM AWARD AMOUNT?

We would advise you to specify an amount that is less than the award amount. If the funding requirement must exceed the maximum value of the award, it will be at the discretion of the judges to assess the solution and its potential for impact against the proposed budget.

15. TO WHAT EXTENT DOES MY SOLUTION HAVE TO BE FINANCIALLY SUSTAINABLE?

Solutions will be judged based on their ability to be scaled at low cost, and on their potential to become financially sustainable once grant funding is depleted.

16. ARE THERE ANY APPLICATION FEES?

No. Anyone claiming to accept application fees on behalf of The Rockefeller Foundation Cassava Innovation Challenge should be deemed as fraudulent.

17. HOW DO I APPLY?

The initial application is a short and easy to complete form. Please visit the [application page](#) on the website to submit your application.

JUDGING

18. WHO ARE THE JUDGES?

We are still finalizing our list of judges. The judging panel will include experts from a variety of sectors including those with deep experience in cassava and the agricultural sector in Nigeria. In addition, the Challenge will draw on a range of experts from academic institutions and the private sector with experience spanning innovation adoption and scaling, commercial food processing and design. Check the website for updates on the composition of the judging panel.

FREQUENTLY ASKED QUESTIONS

19. WHAT IS THE JUDGING PROCESS?

Judging will take place in two phases. In the first phase, applicants' initial concept notes will be screened for eligibility and completeness. Following this, judges will score each concept note using the judging criteria and, based on these scores, select a longlist of applicants to submit full applications. In the second phase, judges will again use the specific criteria to score applications and select a shortlist for potential award. This shortlist will be discussed with a wider group of experts, following which the The Rockefeller Foundation will make a final decision.

20. WILL I RECEIVE FEEDBACK ON MY IDEA IF I AM NOT SELECTED?

Due to the expected volume of applications, it is unlikely that we will be able to provide feedback to individual applicants that do not make it past the concept note stage.

21. HOW DO I KNOW THE JUDGES WILL NOT STEAL MY SOLUTION?

Challenge judges will sign a Non-Disclosure Agreement (NDA) that will prevent them from profiting from your intellectual property. The [Official Rules](#) provide further details on intellectual property rights and the judging process.

INTELLECTUAL PROPERTY

22. BY APPLYING TO THIS CHALLENGE, WHAT HAPPENS TO MY INTELLECTUAL PROPERTY RIGHTS?

Any actual intellectual property rights related to the application and/or the solution described in the application remain the property of the applicant. By submitting an application, you are not granting any rights related to the solution or technology described in your application to the Rockefeller Foundation and the Foundation makes no claim of ownership on any intellectual property rights that it may contain.

However, the Challenge may use the information submitted in the applications to promote the Challenge and other Organizer activities – for example, by providing snapshots of applicants and the types of solutions they are putting forward. Please see the Challenge Rules for more detail.

23. IF I RECEIVE AN AWARD, WHAT WILL HAPPEN TO MY INTELLECTUAL PROPERTY RIGHTS?

The Challenge is focused on implementing and scaling impactful solutions to as broad an audience as possible. At the same time, it recognizes that creating sustainable business models requires the protection of applicants' intellectual property. Prior to award, applicants will be expected to enter into an agreement balancing these two concerns. This will not necessarily involve the release of intellectual property rights, but may require that you grant the Challenge organizer the right to use, adapt, sell, distribute and reproduce the solution in Nigeria (and other countries) at low cost.

FREQUENTLY ASKED QUESTIONS

24. IF MY PATENT APPLICATION IS STILL PENDING CAN I APPLY?

Yes.

NOTIFICATION OF WINNERS

25. WHEN WILL I BE NOTIFIED OF THE OUTCOME OF MY SUBMISSION?

The outcome of the first stage of the application will be announced by July 31, 2016 11:59 pm (ET). Winners will be announced by November 14, 2016.

26. HOW MANY WINNERS WILL BE SELECTED?

The problem of spoilage is complex, involving barriers at several different points in the cassava value chain. Given this, we may make more than one award if we believe that supporting a combination of solutions will lead to greater impact than supporting just one. This will depend on the number, diversity and quality of applications.

27. HOW WILL WINNERS BE NOTIFIED?

Winners will be notified via the contact information submitted in their application (e.g. email or phone call).

WINNING

28. WHAT DO YOU GET IF YOU ARE SUCCESSFUL?

Your institution will be awarded a grant of up to US\$1 million to implement the innovation and will receive technical support from leading international organizations, including the International Institute of Tropical Agriculture and Dalberg Global Development Advisors and their Design Impact Group. Winners must sign a grant agreement with the Rockefeller Foundation, which will include reporting requirements, in order to receive funds.

29. WHAT SORT OF TECHNICAL SUPPORT CAN FINALISTS HOPE TO RECEIVE?

Finalists will receive technical support from two partners: Dalberg and the International Institute of Tropical Agriculture (IITA). Dalberg will provide support through Dalberg Global Development Advisors who will assist in developing financially sustainable business models for solutions, as well as the [Design Impact Group](#), who will provide product and design/user support. IITA will provide technical and scientific input to ensure that solutions are effective in reducing spoilage as they are meant to. Both Dalberg and IITA will advise finalists on potential local and international partners to engage with and, where possible, facilitate introductions to such partners in coordination with The Rockefeller Foundation.

FREQUENTLY ASKED QUESTIONS

30. IF THERE IS MORE THAN ONE WINNER, WILL THE AWARD AMOUNT BE EVENLY SPLIT AMONGST THE FINALISTS?

If more than one winner is selected, the total award US\$1 million will not necessarily be split evenly between finalists. Please see the [Official Rules](#) for more information.

OTHER

31. HOW CAN I STAY UP TO DATE WITH CHALLENGE INFORMATION AND UPDATES?

[Join](#) our mailing list to keep up to date with Challenge information. Applicants can also follow us on social media (@RockefellerFdn @DalbergTweet @IITA_CGIAR) where we will post updates, and check [here](#) for further details.

32. ADDITIONAL QUESTIONS?

Please email info@cassavachallenge.com

Best of luck!