



THE UNIVERSITY
OF THE
WEST INDIES

POLICY BRIEF

Strengthening Food Sovereignty after Hurricane Melissa

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Leaf of yampie (*Dioscorea trifida*) in second season of growth from a germinated true seed

EXECUTIVE SUMMARY

Hurricane Melissa directly impacted thousands of farmer's fields. In the midst of despair, we can recover and climb higher using all we have learnt. We can strengthen food sovereignty in Jamaica, to secure our food, protect our environment, and support our rural communities while being climate-smart and climate-just. To do this, we will need to protect our seeds (those used to make our foods, medicines, houses etc) and their wild relatives. Lack of knowledge makes the task difficult. Who knew yampie had true seed, let alone germinate them? True seeds and vegetative propagules need to be protected differently, at both an institutional and community level. We recommend immediate, short-term and long-term solutions.

INTRODUCTION

- Hurricane Melissa made landfall in Jamaica as a catastrophic Category 5 storm on October 28, 2025, causing unprecedented destruction. Trees were uprooted, leaves and fruit blown off, plants disturbed. Crops destroyed. Prices in the market sky-rocketed.
- We need to increase food security but in a manner that protects and facilitates cultural knowledge and ways of doing, referred to as food sovereignty. Food sovereignty means farmers control their own seed systems, local knowledge is valued and protected, communities set their own agricultural priorities, and food systems are built from the ground up, not dictated from outside. So we need to empower our farmers, not increase dependency. Our success with the Youth Yam Farmers Training Programme (YYFTP) has taught us that direct collaboration between scientists and farmers, while building inter-generational knowledge, is the way to go.
- Questions arise – Who has seeds, what kind of seeds are available? Has Jamaica stored any seeds? Do we know when our seeds are produced, where they are produced, or how long they can be stored without losing their ability to germinate? Can we access organic seeds? Who has clean planting material (tissue cultured plantlets), to avoid disease being spread from one area to another? How fast can we multiply and provide tissue culture plantlets for our major crops which were damaged, primarily for local food consumption, as a first goal.
- How do we prevent glut? How do we sustainably use our biodiversity? How can we ensure the food planted will reach the consumer fresh and full of nutrients? How do we use short-term and long-term mitigation to achieve food sovereignty?

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MAKING THE CASE

Hurricane Melissa exposed the following vulnerabilities in Food Sovereignty in Jamaica:

- **Local provision of suitable food and water.** Many communities were cut off for days. Community storage of water and preserved local foods using solar energy is needed.
- **Immediate call for food.** We eat a very restricted diet, mostly meat(chicken) and rice. Jamaicans will not eat strange food. But foods we traditionally ate have been neglected although they are healthier and grow well in Jamaica. For example, yam, cocoyam, dasheen and badoo for starch; calaloo, purslane, moringa, gumma, hook and dasheen leaf for vegetable, and myriads of fruit. Can we make these better known, more appealing, and thus expand our food choices?
- **Provision of seed.** The cry from the farmers is, where are the seeds? How can we grow what we eat without suitable seeds? Several of the seeds distributed did not sprout or are unsuitable for our climate. What about organic and heirloom seeds? Do we even know the need for such seeds?
- **Preserving Autonomy.** If climate-smart agriculture does not preserve autonomy, it risks replacing one form of vulnerability (climate) with another (corporate control).

RECOMMENDATIONS

The following are some recommendations emerging from the experience with Hurricane Melissa (and other weather extremes that have impacted Jamaica):

- **Determine the needs of farmers for seeds.** Establish community seed banks (refugia for plant genetic resources for food and agriculture and their wild relatives, and encourage everyone to plant, reap and eat at least one plant, rural and urban), school gardens (for canteen use) and ancestral gardens (for maintaining local food varieties).*
- **Increase soil health** by adding ameliorants that can restore life to the soils such as microbe enhanced bamboo biochar.**
- **Encourage and highlight existing collaborations** between government, academia, and farmers. and encourage networks for training, research and marketing. *, ** and ***
- **Encourage small farmers** to maintain, store and exchange seed collections in polyclonal farms. ***
- **Increase funding** for plant related research associated with food security. *, ** and ***
 - **GAP analysis of crop production.** Compare the historical production levels of local crops vs present status at this time of the year linked to local market needs. *
 - **Identify our seeds and plants to the variety level.** There are still useful plants in the forest we do not even have pictures of, let alone classification *, ** and ***
 - **Produce clean planting material & soil ameliorants** to increase productivity. Expand tissue culture facilities we have in Jamaica and separate function of gene bank from multiplication services. *
 - **Collect data on the food we eat, and crops we produce,** vs the food we import, and the food we would like to eat. Record quantity, monthly changes, and nutritional quality.**
 - **Research** on value-added products and better storage methods that retain nutritional value***
- **Diversify our diets** by incorporating our ancestral and 'forgotten' foods.*
- **Increase farmer utilization of 'waste' materials.** Increase cold storage facilities, solar powered solutions, the processing of glut into value-added products and market access to farmers.***
- **Protect our farmers** from those who reap but never planted. Develop a robust Agricultural Warden and Court System.*

* Short-term (0–6 months); **Medium-term (6–18 months); ***Long-term (18+ months)

CONCLUSIONS

The University of the West Indies can help with implementing these recommendations. The Medicinal Plant Biotechnology Research Group of the Caribbean Centre for Research In Bioscience (CCRIB) is available to assist in any way deemed useful and meaningful.