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**‘Our kids don’t want to eat taro anymore’:
Exploring cultural shift challenges for Niue in a climate
changed and globalised world**

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Wild root crop, hoi (Photo: Karen E McNamara)

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1. Overview of Niue

Various and diverse resources are needed for communities to sustain their livelihoods. At the community level, it is important to understand their availability of and access to livelihood resources in appreciating long-term sustainability challenges. The countries of the Pacific region are culturally rich and diverse, with long oral histories and strong linkages to local environments. Niue is no exception. However, there is a growing concern that the country, with a mere 1,460 residents (Government of Niue, 2011), is faced with numerous challenges that underpin its long-term sustainability. This paper is based on recent research carried out in three village communities in Niue: Avatele; Makefu; and Tamakautoga. Such research sought to explore the current status of livelihood resources in each of these communities, and the main problems faced by the community in ensuring their longevity. This PACE-SD occasional paper reports on some of these findings. In undertaking this somewhat cursory study, we acknowledge the much more detailed and comprehensive research has been undertaken on Niue elsewhere (see Terry and Murray, 2004).

A national government exists in Niue, made up of the Premier and cabinet of ministers, as does a local government (or 'village council'), which is made up of a chair, vice-chair and three members for the bigger villages and four members for the smaller villages. Both these levels of government are elected every three years and there is no limit to the number of terms that they can run for these positions. The village council, under the Department of Community Affairs, handles all government business at the local level including the upkeep of the village grounds and village sanitation, such as the outbreak of dengue fever in early 2012 (after being dormant for nearly two decades). The village council positions are not remunerated and hence are voluntary positions. The national government is responsible for sectors including education, telecommunications, health, infrastructure, justice, lands and survey, civil aviation and tourism.

Land tenure in Niue is family owned. For instance, if you wish to have a particular tract of land titled under your name (for instance, to build a house) then you need all the extended family to agree to this and ask for their consent. Once there is family consensus then the land can be titled in your name. There is also crown land (owned by the government, which is looked after by the village council and can be used for community purposes) and church land (which is titled to and therefore owned by the church). There are an abundance of committees in these villages, including those that represent women, youth and sports. The predominant church in these villages is Ekalesia Kerisiano Niue (previously the London Missionary Society denomination) with the head office in the capital Alofi. The President is the Head of Ekalesia

Kerisiano Niue who serves for three years and the Deputy Head takes over. The Executive arm of the Ekalesia Kerisiano Niue is the Komiti Fakatonu (Advisory Committee) who reports to the Fono Motu (National Assembly) that meets every quarter. While there isn't a formal procedure for dispute resolution in the village the church leaders (pastors) have been used previously for counselling and settling of family disputes.

The hospital and health centre in Niue service all 14 villages. This is a free service provided to locals. In terms of waste management, inorganic waste is collected weekly from households. Households also burn their own organic waste. Kitchen waste on the other hand is largely fed to household pigs and chickens. For human waste, most homes use septic systems. As for vector borne diseases, there was a recent outbreak of dengue across the entire island from April to July 2012. It was suspected that someone must have brought the dengue into the country and it was worsened by the above normal rainfall during the rainy season from November 2011 to April 2012. As a result, the Department of Health introduced a vigorous spraying programme for the whole island and urged everyone to remove any mosquito breeding places and seek immediate medical attention if affected.

All Niue homes have access to the public water system powered by water bores located in each village. Moreover, rainfall is fickle across the island, which can severely impact on crop plantation health, particularly taro. For instance, Niue was on 'drought watch' from June to August 2012, with very little rainfall recorded. Moreover, all households are connected to the main power grid. Multiple energy sources are used for cooking including electricity, charcoal stoves and gas. The predominant economic system in Niue is based on semi-subsistence living, with a substantial number of households in Alofi and some of the outer villages engaged in fishing and agriculture for commercial purposes.

From observations, there is an extensive forest system across Niue. Sometimes 'slash and burn' is utilised to prepare gardens and crop plantations. While using a bulldozer for this purpose of clearing is more favourable, it is not always available, which is dictated by the government infrastructure programme. There are no incidences of overgrazing or logging. This is largely because there is no large-scale farming of livestock on the island, and no commercial logging. Some trees are used for making canoes and designer furniture but the bulk of housing materials are bought in from New Zealand such as pine. Figure 1 provides a map of Niue Island, showing the location of villages and Alofi, the capital.

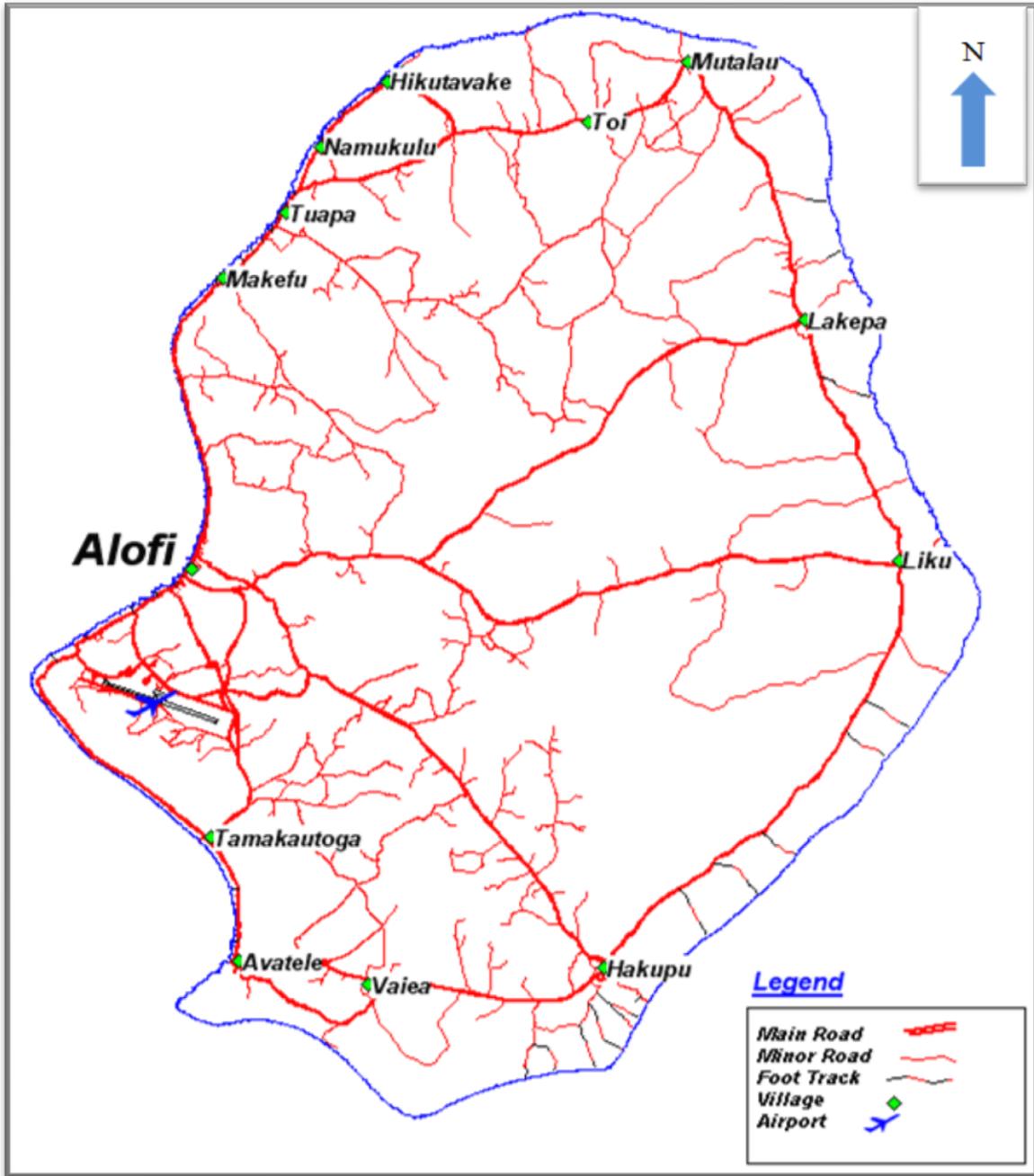


Figure 1: Niue Island (Source: Niue Department of Justice, Lands and Survey).

For Niue, cyclones are of paramount concern to the community. Cyclone Heta was a category 5 cyclone when it made landfall over Niue in January 2004, causing widespread destruction and devastation. The damage to communities was most severe in the western coastal villages from Hikutavake to Avatele with Alofi district sustaining the most damage to both housing and property. All government housing and private homes at the Aliluki housing estate were completely destroyed, together with the only hospital, museum and health institution on Niue. In addition, there was extensive damage to family homes including destroyed farming lands and surrounding forest, which provides staple food sources and food security to all village communities. Moreover, community halls, churches and supporting facilities for community and NGO activities were destroyed. It is important to make mention of Cyclone Heta as it was the most severe cyclone to directly track across the island. Its force and destruction resonates in the memory of Niue peoples.

In the event of a cyclone, announcements are made over the radio and TV. If after hours, the police will come to the village councils to organise evacuations or use a PA system to make the announcement. There are three levels of alert, as illustrated below:

- Blue – cyclone is heading for Niue;
- Yellow – cyclone might hit Niue so prepare; and
- Red – cyclone is going to hit Niue so evacuations are done and the electricity is cut off (hence also the water supply).

All 14 villages have disaster plans aligned to the National Disaster Management Plan and each Village Council is responsible for updating their own disaster plan. These disaster plans, available in both Vagahau Niue and English, stipulate that in the event of a cyclone (or severe drought), families must have enough dry goods and water to last the household for a week, and also have spare batteries and a working radio. In terms of any traditional knowledge-based practices that the community uses to address climate-induced disasters, some community members indicated that they plant certain crops to withstand drought and ‘read’ their local environment for signs of an impending cyclone.

2. Methodology

This study worked in three villages in Niue. A focus group was held in each of the villages to document the current status of livelihood resources in the community. Topics discussed related to socio-economic characteristics, governance structures, water resources and security, food resources and security, disaster risk management, energy resources, and natural resource management. A series of questions were asked of the group concerning the current status, use and management of such resources. This was followed by a group discussion to allow for the community to collectively identify some key problems along these broad livelihood resources or sectors. As explored throughout this paper, it was clear that there are many concerning problems for locals which relate to shifts in cultural practices across Niue, impinging on its long-term viability.

On average, these community sessions would take six hours to complete. A diversity of community members were in attendance including both women and men, and young and old. In Avatele village, 20 community members participated, 10 from Tamakautoga village and 17 from Makefu village. The method employed was comprehensive and participatory (see Pain and Francis, 2003; Kesby, 2000; Kitchen and Hubbard, 1999), which guided communities through a process in which to identify problems, as well as appropriate and sustainable solutions. For the group work sessions, participants were encouraged to be open, interactive and respectful of any diverse opinions.

3. Findings

During the focus group discussions, a series of cultural changes became evident that have impacted on the entire island of Niue. For participants, these cultural changes have largely been symptomatic of outmigration (predominately to New Zealand), change in diet, a move away from traditional practices (and declining interests of the younger generation in such), and the negative impacts of increasing tourism to the island. Each of these changes will be discussed in turn.

3.1 Outmigration

Referring to Niue's population data, Gibson (2004: 203) argues that 'it is difficult to come to anything other than a pessimistic conclusion'. Such a view was reiterated numerous times as a major concern by focus group participants over the negative implications of outmigrations. This trend is predominant in the younger generation, who move to New Zealand for further education and greater employment opportunities. Given that Niue peoples are New Zealand citizens by virtue of their self governed status in free association with New Zealand (since 1974) and are also New Zealand residents, this move makes it easier for people to make in that there is no arduous and expensive resident visa to apply for. However, this trend is changing the dynamic and structure of the overall population. As you drive from village to village around the island, it is commonplace to see abandoned homes.

Niue peoples see New Zealand as their second home and people started migrating in the 1950s onwards. But it wasn't until the completion of the Hanan International Airport in 1973 that a greater number of families left Niue for New Zealand. Since then, Niue has not been able to reverse that trend. Amongst that migration population, Niue lost a lot of productive people. For instance, students on scholarship in New Zealand remained there, and older generations took with them their traditional knowledge of planting, fishing, carving, weaving and cultural protocols. The past three decades have witnessed a continuing decline in population, which has resulted in many empty houses. Some of these houses have been taken over by weeds due to neglect and are slowly deteriorating with age. Efforts by the government to get consent from absentee home-owners have reached an impasse as government tries to pull down these abandoned homes for health and safety purposes.

3.2 Change in diet and reliance on imported goods

For the Niue community, the main root crops grown locally include taro (all varieties), tapioca (cassava), yam, breadfruit and arrowroot. One participant emphasised the importance of taro to community identity and prestige, but how this has started to shift: ‘Taro is status food. You can’t take potatoes to a feast but people do now’ (Female, Makefu village, pers. comm., 2012). This participant expressed loss when explaining how diets have started to shift away from the traditional root crops. This change was reiterated by another participant:

Twenty years ago, it was a no-no to be seen buying a sack of potatoes, you have to hide your bag of potatoes and not let anyone see you because if they do, you are labelled as a tagata teva (lazy person). But now homes are not getting enough of potatoes, one importer brings in 500 sacks on the ship, it will go in two days (Male, Tamakautoga village, pers. comm., 2012).

In terms of vegetables, the most important varieties include mustard leaves, bele leaves, taro leaves, cucumbers and tomatoes. The most popular fruit trees include vi, banana, pawpaw, soursop, guava and mangoes, which have just started fruiting after being destroyed by Cyclone Heta in 2004. These crops are all quite productive but some are particularly susceptible to drought such as the taro varieties. In times of drought, there are a number of crops and ‘wild root crops’ that communities can use to supplement and sustain their household supply. These include the wild yam, hoi, ufilei, arrowroot and local beet. Some of the above crops and fruits are economic crops. Village Annual Show Days appear to dictate the planting of these wild root crops for the majority of growers. Root crops are mainly planted for the Show Day exhibition and planters are encouraged because they receive cash prizes for the biggest crop, the most of one crop or for the most variety. For this, the priority is to sustain ones household and if there is any surplus then they can sell these goods at the local market, such as breadfruit, coconut, watermelon, cucumber and tapioca. Given this, the sale of crops and fruits is not a primary income earner for households.

The main fish types that are used as food sources are sea crabs and shell fish, reef fish and deep sea fish, such as wahoo, tuna, mahi mahi and mackerel. The same principle as above applies to household fishing stocks. Households, both men and women, fish for their own consumption and sustenance, and if there is any surplus this is sold at market or the local tourist businesses. The participants indicated that the productivity level of these marine products is good and steady. Moreover, most households have pigs and chickens as their key livestock resource.

The majority of households in Niue own three to four plantations and work on the land for their livelihood, hunting coconut crabs, bats and pigeons to supplement their intake of protein. Some families that have canoes and aluminium dinghies have access to the sea, while others collect sea shells on the reef and go reef fishing. The plantations depend heavily on the availability of the dozer which comes once a month to each village, otherwise they have to resort to using 'slash and burn' techniques. There are a growing number of families that rely on imported foods such as tinned goods, biscuits, flour, meat, rice and potatoes. During the recent drought period (June-August 2012), most families relied on imported food including potatoes, rice, flour and biscuits. This growing level of reliance on imported goods is a concern for communities. As exemplified by one community elder: 'In ten years, we won't be eating taro' (Male, Tamakautoga village, pers. comm., 2012). This observation arises also from the fact that the young people are not eating the local food as they prefer imported foods like chickens as opposed to the local type. For instance, two minute noodles, sweet biscuits, bread and rice are preferred instead of taro and cassava.

Despite an abundance of locally grown crops and root crops, marine resources and household livestock, there was a real concern that people were already too dependent on imported goods and this would only increase. Ali (2004) supports this trend towards an increasing dependency on food imports in Pacific countries such as Niue. Ali (2004) suggests that the reasons for this are threefold: increasing urbanisation; greater opportunity for cash employment; and expanded interest in export agricultural and fisheries production. A number of participants in focus group discussions indicated that for them, the core reason for greater import dependency was higher expendable incomes and standards of living. For one participant: 'standard of living has increased and that's why it has changed' (Female, Makefu village, pers. comm., 2012). Another participant blamed money as the reason for the shift away from traditional crops: 'we have money and easy to buy rice and bread and potatoes' (Female, Makefu village, pers. comm., 2012). Another participant reinforced this sentiment: 'they have money so go to the shop and not the plantation or farm or can buy from the market' (Female, Makefu village, pers. comm., 2012). The older people (aged 60 plus) now receive the Old Folks benefit on a fortnightly basis so it's much more convenient for them to buy groceries from the shop rather than go to the plantation or go fishing. Public servants work five days a week leaving only Saturday to spend on the plantation so it is also more convenient for them to subsidise local food with imported goods. In the past, with a large population base, the division of labour was distinct with many families having sufficient labour working the plantations during the week and the other family members working in government. Food security was a priority in the 1960s-1980s where every household head owned two or more plantations. This was an ordinance in those days – if you didn't own a plantation you were fined. Members of the Police Department would visit each

village to inspect and ensure that people had enough plantations to sustain their families. Niue's population peaked at 5,100 in 1966 but has since dwindled due to outmigration. Taro used to be a status crop for feasting, as was galue fafau (three taros bundled and hung on a wall of sticks), but this is now only practised to welcome the arrival of the Governor General from New Zealand or leaders of the Pacific. Taro planting is still the pastime of the most dedicated and conservative group, the middle-aged and the 60 plus males. Now, only a few young men own plantations. In addition, it seems that taro is planted now to fulfil the semi-subsistence economy as well as community obligations of feeding the pastor, feasts for important occasions and for exhibition on village annual show days.

3.3 Move away from traditional practices

Linked to the above concern about diet changes is the shift away from traditional practices. This includes a reduced interest in maintaining self-sufficient plantations (especially the younger generation), applying food preservation knowledge and engaging in traditional fishing practices for self-sustenance. Moreover, there has been a declining rate of transmission of the local language, Vagahau Niue to the new generation of Niue peoples, especially for those living abroad.

The main farming system practiced by communities is semi-subsistence, with some small commercialisation of root crops and vegetables. Most of this produce is sold in Niue but taro is exported to New Zealand. Taro prices are not attractive so many growers have given up sustaining it. In addition, the Department of Agriculture, Fisheries and Forestry gives advance notice before the ship arrives, requesting growers to inform the total number of sacks of taros they will be sending on the ship. However, if the growers cannot meet the minimum quota of 500 sacks, then taro exports for that shipment will be cancelled. According to participants, shifting cultivation is used to ensure plantations survive, given the difficult conditions for growing, due to poor soil fertility and the large amounts of limestone rocks scattered throughout the landscape. The older generation have a large amount of knowledge on how to do this, and there is a concern that such knowledge is not being passed down to the younger generation largely because they are keen on working the plantations.

One lady in Avatele village raised the novel idea of developing a recipe book to preserve knowledge of wild root crops and traditional cooking techniques. For instance, there was a strong concern that the younger generation do not know about wild root crops, including forest fruits, which are particularly good sources of food during times of drought. These wild root crops are drought tolerant but many of the younger generation would not know what they are, where to find them or how to cook them. There is hoi

and other plants like pia (arrowroot), ufilei and pilita, which can be collected from the bush during times of drought or in the aftermath of a cyclone. These crops need to be cooked for a few days in the umu (an underground earth oven). As argued by a male in the community: ‘The young ones wouldn’t know how to find it or what to do with it’ (Male, Tamakautoga village, pers. comm., 2012). He suggested that the younger generation need to be shown this traditional knowledge by their parents, grandparents or through the formal education system. However, this is difficult as ‘the students here don’t want to learn this way, they want to learn the palagi (western) way – in the classrooms; that won’t teach them’ (Male, Tamakautoga village, pers. comm., 2012). In terms of any traditional knowledge-based practices that the community uses to manage food resources and ensure food security, a few were shared during the group discussions. These included processing pia (arrowroot) into powder for longevity, and preserving the taro by digging a hole and burying it to maintain its freshness for a few months. Other preservation techniques included cooking breadfruit and taro in the umu so it will keep its freshness for a few days, or making tapioca or banana bread. Participants indicated that prior to a cyclone, it is important to cut the tapioca leaves and stems so they are short in the ground, to avoid excessive wind damage to the roots.

In terms of fishing, the main fisheries system practiced by the community is semi-subsistence with a small amount of semi-commercial operators who provide fish to the main resort on Niue, Matavai Resort. Normally, fisher people will collect enough fish for their own family units and if there is surplus then they will sell them. The main sources of income for the people of Avatele village are government-based jobs, followed by the sale of handicraft (made by the women) and some vegetables. However, one local lamented that it is ‘a dying art in Tamakautoga village – they just buy tinned fish, there are only two traditional canoes in the whole village’ (Male, Tamakautoga village, pers. comm., 2012). In terms of any traditional knowledge-based practices that the community uses to manage their marine resources, participants indicated that in the past they would cook the fish in the umu every day until dry and cover in banana leaves allowing the fish to stay fresh for one week. Traditional knowledge practices vary from one village to another and the knowledge is closely guarded and not readily divulged to people from outside the village. However, there was consensus amongst the participants that it is time to document, record and publish this traditional knowledge for the benefit of the young generation.

3.4 Concerns about strain of tourism boost

At present, one flight services Niue (from Auckland, New Zealand) weekly. This flight, a 737 Air New Zealand aircraft, which can carry up to 140 passengers, brings with it international tourists, predominantly New Zealand holiday makers. This service is set to double in 2013 with two flights being made available

from Auckland. Locals, particularly in Tamakautoga village, expressed concern about this increase capacity for more international tourists, given that their water supply is shared with the nearby Matavai Resort, the only resort on the island. Most of the tourism accommodation on the island is self-contained rental houses, but Matavai Resort caters to the more luxury oriented visitors. Matavai Cottages are also being built towards the end of the village going to Alofi so that would provide further pressure on the village water resources in Tamakautoga.

For locals in Tamakautoga village, their water supply is almost entirely dependent on the two village reservoirs, which are shared with Matavai Resort. Only six households in the village also have rainwater tanks. In the past, the community depended on rainwater as their main water supply. People would have to go and collect this water from the community tank in buckets; sometimes they had to do this at a number of times during the day. The water is currently distributed directly to households from the reservoir using underground pipes. Concern was raised that at times, with no warning, the water supply to the village is cut-off for up to two days. The villagers suspected that this is due to over-usage at Matavai Resort. As mentioned above, there are six households in Tamakautoga village that also have their own rainwater tank (of approximately 400L capacity each). Also, the water is powered up from the water lens by electricity so every time there is a power cut, there is no water. More often during cyclone seasons, sometimes the power is turned off in preparation so people need a water backup system. It is anticipated that this water shortage problem will be alleviated by the availability of household water tanks to all occupied households on Niue under a climate change adaptation project supervised by the Department of Environment hopefully to be implemented in 2013.

4. Concluding Remarks

This paper has briefly assessed some of the cultural challenges faced by Niue, one of the smallest countries in the world. These cultural challenges are important to consider when understanding and planning for the country's long-term sustainability and viability. Based on focus group discussions in three villages in Niue, participants were concerned about cultural shifts in their community. These cultural shifts included outmigration, shifts away from traditional subsistence living and a greater dependency on imported foods, loss of traditional practices and the added pressures of a growing tourism industry.

These changes are likely to be exacerbated in an increasingly globalised world with a changing climate. For instance, discussions amongst community members about changes in cultural practices have been subtle over the years but they seem to have been exacerbated by efforts to adapt to climate change. This paper thus, as way of a conclusion, seeks to raise a crucial research question (that has been beyond the direct scope of this study due to time constraints): what do these shifts in culture mean for community adaptive capacity to climate change? Various and diverse livelihood resources are needed to sustain people's ability to live their lives, but the concern is for example that a shift from traditional means of subsistence towards greater food import dependency may only enhance vulnerability. Communities in these three villages expressed sincere concern about the challenges ahead, which might undermine their long-term sustainability. More work and research is needed to map an alternative way forward to maintain and strengthen cultural practices, and ensure that they are not undermined by the challenges of globalisation and climate change.

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