

# Drought, Famine and Epidemic Among the Ankave-Anga of Gulf Province in 1997–98

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## Abstract

The food supply and health of the people in some inland locations in Gulf Province were very severely affected by the drought in 1997. In February 1998, I visited the 1100 Ankave-Anga horticulturalists. My aim was to supplement the emergency food supplies they were receiving, especially in the Ikundi Valley. The government estimates that 105 people live in this area, but in fact 300 people live there. Rain fell in late 1997; by February the gardens were green and luxurious, but almost empty of food. However, the Ankave were confident that the gardens would carry food soon and they were no longer reluctant to harvest the small quantities that could be found. In consequence, the food shortages were over. Due to the isolation of the Ankave area and to the lack of health services, the death toll was extremely high in 1997. Malaria, and probably dysentery, killed 7% of the population in about a year, an extremely high death rate. The biggest epidemic took place after the food supplies had been brought into the area.

## Introduction

SINCE 1982, I have been regularly conducting anthropological fieldwork among the Ankave-Anga people, who live in the mountains in the far north of Gulf Province. Numbering about 1100, they are spread unequally between three steep-sided valleys that run in the direction of the Gulf of Papua on the southwest flank of the central cordillera. Some 95% of the area is covered in tropical forest; the altitude ranges from 600 to 2800 metres above sea level. The population density is variable but never exceeds 3 people per square kilometre and averages about 1.2 people per square kilometre. Villages and hamlets are situated at altitudes of between 800 and 1400 metres above sea level; they are small, the biggest comprising only about 15 domestic enclosures. Each family owns a

house in a hamlet, but it is rarely occupied all year round. For many activities, such as opening a new garden, making and setting eel traps, beating bark capes (*tapas*), preparing lime to be chewed with betel nuts or gathering and preparing wild or cultivated fruit and nut trees, a shelter is constructed in the forest, several hours' walk from the village, where people spend days, weeks or even months.

The Ankave are horticulturalists and gatherers and they raise a few pigs (a mean of 0.5 pigs/person) that they feed with cooked taro. Though they live in or near forests and streams, the people practise hunting and fishing only irregularly. Nevertheless, wild pigs (rarely), cassowaries (even more rarely), marsupials and eels feature in most social exchanges, and are essential for life cycle rituals (for example, marking the birth of a child or the end of mourning). Meals consist mainly of *Xanthosoma taro* (*Xanthosoma sagittifolium*), introduced 50 years ago or so; sweet potato; less frequently, banana (*Musa* cultivars) eaten raw or cooked; and *pitpit* (*Saccharum edule* and *Setaria palmifolia*). To these are added wild or cultivated leafy

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vegetables (*Amaranthus*, *Diplazium* sp., *Cyathea* sp., *Gnetum gnemon*, *Rungia klossii* and others) and sometimes mushrooms and gourds. Maize was introduced about 40 years ago but remains a marginal part of the diet. Crops are cultivated in temporary gardens at altitudes of 600 to 2000 metres above sea level. Gardens are cleared but not burned over.

In addition to the cultivated plants consumed all year round, the Ankave eat seasonal fruits and nuts from several trees. These trees may occur naturally and be maintained by the people or they may be planted. They include *Artocarpus altilis*, *Pangium edule* and *Pandanus conoideus*. *Pandanus julianettii* trees are found at the top of the mountains (over 2000 metres above sea level), but grow on the no-man's land that lies between Ankave territory and that of their former enemies; these trees are only exploited in the course of two- or three-day expeditions in November, during which only the syncarps fallen on the ground are said to be collected. *Artocarpus altilis*, *Pangium edule*, and *Pandanus conoideus* grow at different altitudes (600–800, 600–1000, and 600–1500 metres above sea level respectively); the fruits of one or another are always available.

The Ankave live at the boundary of three provinces (Gulf, Morobe and Eastern Highlands), so they have remained on the margins of 'development'. At the time of writing (December 2000) they are still without a road, an aid post or a school.

## A Plea for Assistance

Since a pastor from the Markham Valley taught about 20 of them to read and write in *Tok Pisin*, the Ankave people from Ikundi write to me once or twice a year. In 1997, at about Christmas time, I received a scribbled note that said something like '*Sun i kukim olgeta gaden na Gavman em i no save helevim mipela*' ('A drought has destroyed all our food gardens, but the government is not assisting us with food aid'). When I rang the town of Menyamy, I found that the situation was serious, even though once or twice the Ikundi Ankave had received food brought in by the Australian Agency for International Development (AusAID).

Being aware of the importance of the message that had reached me, I apparently found the right words to obtain almost immediate financial assistance from the French Ministry of Foreign Affairs, which funded my travel from Marseilles to Ikundi and arranged for the helicopter transport of one tonne of food. (At the beginning of March, the French Government had 60 tonnes of food delivered by Transall aircraft within the

framework of an emergency relief agreement between France, Australia and New Zealand. However, the aid delivered to the Ankave preceded this operation.)

The role of researchers was essential to the implementation of this assistance. Reports written for AusAID by a geographer and an agriculturalist from The Australian National University revealed the extent of the problem (Allen and Bourke 1997ab). Dan Jorgensen, from University of London, Ontario, Canada, provided copies of documents that he had made available to researchers from the Association for Social Anthropology in Oceania. The French authorities appreciated the involvement of these scientists and the quality of the information that I was able to pass on to them. Without such extremely precise data, it would have been difficult for me to convince the French Ministry of Foreign Affairs to assist an almost unknown ethnologist to bring food aid to a tiny PNG population.

## The Situation at Ikundi

I arrived in Ikundi on 21 February 1998. The rains had started again at the end of December, allowing cracks in the ground to close up so the cultivation of new gardens could begin. From March onwards, there was no water supply problem; the gardens were generally lush, but empty of any food plants. At that point, in spite of the lushness of the vegetation, no garden produce was harvestable: banana plants bore only shrivelled bunches, although the plants were two metres tall; the *Xanthosoma taros* produced only a single tuber, a quarter of the normal thickness, eaten away by insects and 'going to water' when cooked; the sugarcane was poorly developed, rotten inside and shot through with galleries dug out by large white larvae; and the sweet potato produced only leaves and roots, but no tubers. Traditional 'famine food' was in use everywhere.

I did not hear of marsupial animals that had died of thirst, but where mountain torrents normally flowed the Ankave gathered together around stagnant water holes where fish and eels rotted in pools that had progressively dried up. For the first time in their lives, people travelled in the forests, carrying water with them in bamboo tubes. The valleys were spared from the smoke that affected other parts of PNG during the drought, but I was told that the sun and the moon were constantly red. Most of the time, the Ankave were bewildered and distressed by these phenomena, for which the elders had no cultural response. They certainly mentioned the '*time bilong darkness*'—the 17<sup>th</sup> century eruption of the volcano on Long Island that

plunged New Guinea into darkness for several days—but only in the sense of recalling another-unheard of catastrophe.

Most fortunately, it was during this delicate period that international aid became effective. I was told that the people of Ikundi had twice received food before my arrival, probably in November 1997 and January 1998. The Lutheran Health Service nurses had been there in 1998. To my great surprise—and great delight—the Ankave village of Buu’ was known by those responsible for Australian aid. These people had already landed at Buu’ twice in large helicopters. From Buu’, food was carried to Ikundi, in the next valley, some eight hours’ walk away. Unfortunately, the Ikundi Valley was believed to have a population of only 105 people, when in fact there were nearly 300, about 50 of whom lived in the isolated Saa’ valley (shown as New Year Creek on the maps). The 50 Yoye-Amara-Ankave from New Year Creek (who are often taken by *kiaps* and sensation-seeking journalists to be stone-age men) told me that they had not received any aid.

International food aid and the harvesting of food plants planted as soon as the rains arrived (maize, beans and pumpkins) allowed the Ankave to hold on until the taro and sweet potato, normally the main food crops, were ready to harvest (April–August). With regular rains, the gardens once more produced sufficient food. Harvests were normal in 1999. However, the Ankave paid a high price during the 1997–98 drought, with a great number of deaths recorded during that period.

## Death Rate from the Drought

It is widely believed that few people died of starvation as a result of the drought despite the destruction of most of the 1997 harvest. Nevertheless, mortality rose dramatically: people in a weakened physical condition were more susceptible to pneumonia, tuberculosis and dysentery. Moreover, a major consequence of the drought was an abnormally high number of mosquitoes, resulting in a renewed outbreak of malaria, which is the main indirect cause of illness among the Ankave. In addition, people who were accustomed to drinking directly from watercourses with pure water were forced to drink from pools of polluted water. This was probably responsible for the epidemic that decimated the people from Angai, perhaps due to typhoid.

When I first visited Angai after the drought, I was told that 83 people had died in the Angai Valley alone. I could not verify this figure as I have never carried out

a census in that valley. However, I have complete confidence in the person who reported it to me: ‘Peter’ from Angai, whose extraordinary conscientiousness and eye for detail I have appreciated since 1982. In November 2000, I again raised the question with him, and he listed for me the names of 20 adult males, 24 women and 20 children who had died during the drought, just in the village of Angai. In the village of Ikundi, where I carried out a census in June 1997, I estimated that 13 people had died between June 1997 and February 1998: 4 adults, and 9 children under 6 years of age. With an estimated population of 1100 in 1997, these 77 deaths alone represent a loss of approximately 7% in one year, an enormous percentage. Dr. P. Bonnemère and I have previously estimated the infant mortality rate as about 350 per 1000; unfortunately, it has been stable for almost 20 years. This indicates that the Ankave occupy an area with some of the worst health problems in PNG, even if there are no official figures.

It is particularly worrying to note that at the time these deaths occurred the rains had begun again and the local population had received a great quantity of rice. According to the people of Angai and Ikundi, they consumed only part of what had been provided for them. This was partly because they kept some back as a hedge against a possibly worsening situation if the rains had failed to arrive at the beginning of 1998, but also because the need for the rice was not yet being dramatically felt, even though they were only a few weeks away from such a situation. An abundant food supply was no barrier against the epidemic once it was unleashed. The greatest need was for health care, but inadequate communication meant that health teams arrived several days, and sometimes several weeks, after the start of the epidemic. I believe the health services of the Australian Army encountered a similar situation among another Anga group, in the upper Tauri Valley, towards Tsewi.

## Conclusion

The people of Ikundi have had a radio since November 1994 (donated by the neighbouring Morobe Province). The Angai people obtained one only in June 1998 (donated by the French Embassy). Radios can produce marvellous results: for example, in 2000, a measles epidemic was effectively and rapidly arrested following a message sent from Ikundi.

The authorities of Gulf Province believe there are approximately 10,000 people in the ‘noncensused, noncouncil areas’ situated right along the northern

boundary of the Gulf. These people—unknown to anyone, even to demographers—are at the mercy of dramatic episodes such as those of 1997–98. It is good that these conference proceedings provide an opportunity to draw attention to the anomalies.

### **Acknowledgments**

On behalf of the Ankave people of Ikundi, Angai and Sinde, I wish to thank Bryant Allen, Mike Bourke and Dan Jorgensen. It is only because of the timely reports they published that I took seriously the emergency message which the Ankave sent me. Darryl Tryon of The Australian National University translated part of this paper into English.

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