The impact of drought and humanitarian aid on a Yali village in West Papua, Indonesia

Manuel Boissière

Abstract: The 1997 El Niño event severely affected the western part of the island of New Guinea. A group of highlands villages at Holuwon experienced drought, forest fires and disruption to food production. This article describes the reaction of the villagers to these natural disasters and to the humanitarian aid that they received. The social order was the first to be affected. Severe competition developed for the allotments of humanitarian aid and yet sharing of land and other help were offered to neighbouring ethnic groups. Reactions were also observed at the level of religion and were manifested in the Yalis’ search for an explanation of the events. Lastly, there was preservation and reconstruction in the form of the fighting of forest fires and the re-creation of gardens following the drought.

Keywords: New Guinea, West Papua, Yali ethnic group, drought, famine, humanitarian aid

Between June 1997 and April 1998, 9.75 million hectares of forest burned in Indonesia (Fox, 2000). A million hectares was located in Irian Jaya. In the small town of Wamena, in the highlands of Irian Jaya, the sky was covered by a thick layer of smoke for several weeks in October 1997. Daily flights from Jayapura to Wamena that brought in imported food and fuel were cancelled because of poor visibility. The town began to ration everything that came from the outside. The smoke haze and the shortage of fuel also restricted the flights of the light aircraft belonging to the MAF (Mission Aviation Fellowship) and the AMA (Associated Mission Aviation), which operate regular flights from Wamena into the surrounding region. There was talk in Wamena of an alarming situation faced by village people because of the drought. Several times, in September 1997, villagers coming on foot from Holuwon, located at the confluence of the Heluk and Baliem rivers (Fig. 1), spoke to me of their increasingly precarious situation. This paper reports on their situation, how they responded to the drought and to the provision of food relief. Little
information has come out of Irian Jaya about the 1997–98 events. In this paper I describe and comment on the events that unfolded and how the people reacted to them as a function of their culture and history.

The impact of the El Niño event in 1997–98 was not uniform throughout Irian Jaya. The southern part of the central cordillera and the area to the east, towards the border with Papua New Guinea, was the most severely affected.
Holuwon is located in the middle of this area. During 1997 and 1998, I lived in several villages in the Wamena region as part of field research for my PhD dissertation on ethnobotany (Boissière, 1999a). My dissertation treated the relationships of the Yali people at Holuwon to their environment, as revealed through activities such as agriculture, hunting and gathering. My approach was to try and understand the organisation of Yali space (Boissière n.d.) and the manner in which Yali social interactions find expression in different parts of their territory. The aim was to understand how the Yali perceive and manage this forest landscape.

THE YALI OF HOLUWON

To properly comprehend how the Yali lived through the events of 1997 and 1998 requires an understanding of their social structure and the relationships the Yali bear to their forest territories. These relationships are described briefly in order that the ‘syntactical’ elements of their reactions and strategies in the face of this catastrophe can be grasped.

Holuwon is a village of about 400 people\(^2\) built in the 1970s as one outcome of the construction of a light aircraft landing strip by the GIDI\(^3\) Baptist missionaries. It is situated at around 1,000 metres above sea level. The inhabitants of the valley come mostly from a group of villages at a higher altitude, called Yalisili (Fig. 2), or ‘home of the Yali’, and from several other small hamlets. The village is organised around a number of men’s houses, or *yowa*,

![Figure 2. Holuwon domain](image_url)
each one led by an important male known as *ab lohon*, or ‘big man’. This person, if he is not the holder of a position of customary authority recognised by the villagers, will in any case often be listened to when he gives his advice concerning a problem or important question affecting the village. For example, in 1997 during the delivery of humanitarian aid, an Indonesian official tried in vain to calm a mob that had seized the food. A well-respected *ab lohon* became angry and shouted at them. Immediately all agitation ceased and people moved away. The official, seeing ‘authority’ exercised so easily asked who the person was and if he would help maintain order during the reception and distribution of aid. The *ab lohon* walked away without answering. *Ab lohon* must choose the moment and their words carefully and above all not abuse their power. This man was also a *hemangi*, or hunter of the hornbill, the feathers and skull of which were precious to the shamans, or *hwalahun*, before the Christian evangelisation of the valley. The shamans, among the most respected and feared men of the village, had the power to declare war, and could make spells and expel village ghosts into the forest. They lived in the sacred men’s house, or *ousayowa*, in the company of the guardian of the sacred objects, the *ousahun*. Shamans also directed initiation rituals.

Women in Holuwon do not share dwelling houses with men. At marriage, their husbands build a family house or *homea*, where they live with their children. Frequently, a portion of this house serves to shelter pigs; a wall separates the pigs from the part inhabited by the women and children. The women mainly perform the daily tasks of cultivating the land. The Yali grow sweet potato (*Ipomoea batatas*) which is their staple food, supplemented by numerous other vegetables and tubers. Agriculture is practised at a range of land-use intensities and technologies (Boissière, 1999b), from low intensity shifting cultivation where vines are dibbled directly into the cleared soils, to the use of mounds and composting. In contrast to their Dani neighbours in the Baliem valley near Wamena (see Figure 1), the Yali do not burn indiscriminately during land clearing. The plot is cleared and the cut branches, trunks and undergrowth are burned in special heaps called *elahan*. In this region of steep slopes and high rainfall, slashing and burning over the whole plot is avoided because the heavy rain would rapidly carry the soil away.

For the Yali, cultivated land, as contrasted to forest, is very important in as much as it is the site of most human activity (Boissière, n.d.). It can be considered as an anthropogenic space, where the hand of humans is seen everywhere, from the clearing of a new garden up to the social exchanges that take place between groups of people. The relationship between Yali society and their land is very strong. Every part of their territory is subject to rules of ownership and use. Almost every landmark (hills, rocks, streams and flat areas) is named and names often refer to past events and people.

**DROUGHT AND FIRE IN HOLUWON**

Holuwon belongs to the sub-district (*Kecamatan*) Ninia within Jayawijaya. The fires started in Jayawijaya in August 1997. A World Wildlife Fund report...
(1997) argues that the sub-district of Kurima, not far from Holuwon, experienced the greatest fire damage. Over 5,000 hectares of vegetation were destroyed and people suffered from smoke inhalation.

The effects of the drought were first felt at Holuwon in May 1997. However, until November 1997, despite a severe lack of rain at Holuwon, the village lands were spared from fire. The Yali’s Dani neighbours use fire to clear land (Purwanto, 1997) and light fires to attract clouds and rain. I witnessed large fires in Dani gardens near Wamena burning out of control while local government workers in cars were driving around Wamena warning people over a public address system not to light any fires at this time. Clearly the warnings had little impact on the Dani in the hills surrounding the town. This is doubtless because of the poor understanding of Dani culture by government officials in the Jayawijaya district. The Yali, by contrast, do not have a ‘culture of fire’. Their gardens are not burned during clearing in order to help preserve the soil seed bank, which speeds up regrowth. Tree roots remain in the soil. This explains how the Yali were able to prevent wild fires occurring in their area for some time.

Even without fires, the drought began to have an impact on Holuwon. In the gardens, the sweet potato plants were few in number and their leaves had yellowed (see Figure 3). The few tubers that remained were those left unharvested from the last planting before the drought (see Figure 4). Most of these tubers were infested with insects. There was a great difference between the luxuriant gardens that I had visited during my previous stay at Holuwon in December 1996 and those I encountered in November 1997. Little by little, the harvest diminished in size and people began to work less often in the gardens in the face of the hopelessness of the situation. At Holuwon between December 1996 and March 1997, a local market was held several times a week. In a few hours, net bags filled with sweet potatoes and other vegetables and fruits would be sold. During the latter part of 1997 there were no tubers at all for sale at this market. The only vegetables available for sale arrived occasionally from the villages less affected by the drought, situated upstream of Holuwon. The fruiting season of red pandanus (Pandanus conoideus) began in November and lasted until March. The pandanus fruits were less abundant than normal, but they supplemented the diet of some villagers. The quantity of fruit permitted for each villager depended upon the right of use. Red pandanus has great symbolic importance and formerly played an important role in rituals.

One of the first problems confronted by the villagers was lack of food. On the scale proposed by the team in charge of evaluating the impacts of the drought in Papua New Guinea (Allen and Bourke, 1997), Holuwon fell into their Category 4: no food in the gardens, only ‘famine foods’ being eaten, and/or little or no water available locally, and/or disease more prevalent, and/or children or old people in danger of dying. However, as the authors of this report explain, the scale at which this sort of assessment is made does not allow detailed assessments below the village level. The main ‘famine’ foods eaten at Holuwon were wild yams, edible leaves and fruits, palm hearts, wild bananas and the fronds of ferns. Palms called lombie (Pinanga sp.) are a well
known ‘famine’ food, and the pith and young leaf buds are eaten. I did not observe an adult lombie during my botanical work and people explained that they were all eaten during a previous famine. The pith of wild banana is chewed like sugar cane, and the liquid in the tissue is drunk. Table 1 contains a list of some edible wild plants that were used at Holuwon as an emergency source of food during 1997. However, these were not sufficient to support the entire population adequately.

Another problem was the loss of the village water supply. Four streams run through Holuwon. All had dried up by November 1997. Only the nearby
Pusaheik River still had water in it, although it had ceased running. Soon there remained nothing but a small pond hidden behind a rock, which became the only source of water for the whole village. If this pond had disappeared the nearest supply would have been the Bim River, about an hour’s round trip walk from the village. The cases of dysentery reported in this period were the result of the lack of clean water. People weakened by lack of food were more susceptible to infectious diseases, including severe malaria. From my own observations and those of the three male village nurses, very few people died of lack of food per se, but rather of diseases that ravaged a population in a weakened state of health.

Thirdly there were fires (see Figure 5). Yali territory is divided into areas of cultivation which include gardens, degraded forest (the source of wood for fences and seeds for regrowth), and the successional vegetation that forms after the abandonment of gardens to fallow. Surrounding these cultivated areas are secondary forests, a source of firewood and timber for houses, while still further away are forests that are less disturbed by human activity; these are

Figure 4. A sweet potato garden
places for hunting and also the abode of ghosts. All these forests were affected by the drought. Many trees lost their leaves. Almost without exception, all *Acalypha helwigii* and *Saurauia* sp. trees that I encountered during my work in the Holuwon forests had dried. The *Dacrydium novoguineense* forest, which grows in soil habitually saturated with water and covered with mosses, was completely dry. The forests became veritable boxes of kindling that the smallest flame could set alight. And that is exactly what happened on

Figure 5. Fires at Holuwon. The Heluk river in 1997
9 November 1997, when, in a remote Holuwon garden, a cigarette butt started a fire that destroyed all of the forest on the left bank of the Heluk river (Holuwon is on the right bank). This fire threatened Danggema and Puplin villages in Desa Holuwon. Of the three fires that I witnessed, two began in isolated gardens and one in a large area of cultivated land and fallows. The first fire had its origin in the burning of an elahan, a heap for burning, that escaped the control of the cultivator. But the fire began in a much frequented spot and for this reason was quickly brought under control. The second fire was accidentally started by the chief of the village, the Kepala Desa, in an isolated garden that he had opened in the Baliem valley. He managed to put out the fire by himself.

The third fire was attributable to a young Danggema villager and it appears, from the amount of destruction, to have escaped public notice for some time. The place where the fire started was a five-hour round-trip walk from Holuwon. The villagers, occupied by the arrival of food aid, at first did not worry too much about the fire, although the noise and light could be seen from some distance, particularly at night when it lit up the Heluk valley. When it threatened to cross the river into an area of gardens nearer to the village, however, people began to fight it and to survey the river banks for places where it could cross. Villagers from Holuwon and Danggema tried to contain the flames, but within a week it had ravaged the mountain top and licked the outer limits of the villages of Puplin and Danggema. A thick layer of smoke covered the sky day.

Table 1. Principal edible wild plants

<table>
<thead>
<tr>
<th>Latin Name</th>
<th>Family</th>
<th>Yali Name</th>
<th>Part eaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpina sp.</td>
<td>Zingiberaceae</td>
<td>Hende hende</td>
<td>Leaves</td>
</tr>
<tr>
<td>Artocarpus altilis</td>
<td>Moraceae</td>
<td>Sawe</td>
<td>Leaves and fruits</td>
</tr>
<tr>
<td>Cucumis sp.</td>
<td>Zingiberaceae</td>
<td>Aniong</td>
<td>Leaves</td>
</tr>
<tr>
<td>Cyatea sp.</td>
<td>Cyatgeaceae</td>
<td>Many names</td>
<td>Leaves</td>
</tr>
<tr>
<td>Dioscorea sp.</td>
<td>Dioscoreaceae</td>
<td>Bingga</td>
<td>Tubers</td>
</tr>
<tr>
<td>Endospermum myrmecophyllum</td>
<td>Euphorbiaceae</td>
<td>Habul</td>
<td>Leaves</td>
</tr>
<tr>
<td>Ficus copiosa</td>
<td>Moraceae</td>
<td>Soluk</td>
<td>Leaves</td>
</tr>
<tr>
<td>Ficus gul</td>
<td>Moraceae</td>
<td>Solo</td>
<td>Leaves</td>
</tr>
<tr>
<td>Ficus pungens</td>
<td>Moraceae</td>
<td>Silip</td>
<td>Leaves</td>
</tr>
<tr>
<td>Ficus septica</td>
<td>Moraceae</td>
<td>Hok</td>
<td>Leaves</td>
</tr>
<tr>
<td>Gnetum gnemon</td>
<td>Gnetaceae</td>
<td>Yangwik</td>
<td>Leaves</td>
</tr>
<tr>
<td>Halochlamis</td>
<td>Araceae</td>
<td>Boruh</td>
<td>Leaves</td>
</tr>
<tr>
<td>Heliciopsis lanceolata</td>
<td>Proteaceae</td>
<td>Hendahe</td>
<td>Fruits</td>
</tr>
<tr>
<td>Hinoscus sp.</td>
<td>Malvaceae</td>
<td>Namulip</td>
<td>Leaves</td>
</tr>
<tr>
<td>Horsfeldia helwigii</td>
<td>Myristicaceae</td>
<td>Koli</td>
<td>Fruits</td>
</tr>
<tr>
<td>Musa sp.</td>
<td>Musaceae</td>
<td>Kerak</td>
<td>Leaves and pith</td>
</tr>
<tr>
<td>Nicolaia sp.</td>
<td>Zingiberaceae</td>
<td></td>
<td>Fruits</td>
</tr>
<tr>
<td>Pangium edule</td>
<td>Flacourticeae</td>
<td>Uk</td>
<td>Fruits</td>
</tr>
<tr>
<td>Pinanga sp.</td>
<td>Arecaceae</td>
<td>Lombie</td>
<td>Pith and leaf buds</td>
</tr>
<tr>
<td>Saurautia capitulata</td>
<td>Actiniaceae</td>
<td>Mop</td>
<td>Leaves</td>
</tr>
<tr>
<td>Terminalia sp.</td>
<td>Combretaceae</td>
<td>Walo</td>
<td>Fruits</td>
</tr>
</tbody>
</table>
and night, and led to a noticeable lowering in air temperature. In the early evening the sun appeared as a red ball. The smoke prevented aircraft from landing and only a few helicopters were able to reach Holuwon. Besides Desa Holuwon, the neighbouring regions of Tangma, Soba, Pasema, Ninia and Lolat (Fig. 1) were severely affected by the fires (Wenas, 1997). This fire did not completely die out until the arrival of the first rains on 15 November 1997. From this date onward, rain began to fall regularly up until my departure in April 1998. Once the smoke began to diminish in November, the airplanes carrying the humanitarian aid began to arrive.

THE CARGO OF HUMANITARIAN AID

In a report published 16 October 1997 (Wenas, 1997), the chief (Bupati) of the Jayawijaya District identified Holuwon as one of eight villages where humanitarian aid could be stored and from there be transported to isolated villages by foot. Based on exaggerated information about the area of land under cultivation (Wenas, 1997: Annex III) and the reduced productivity of the gardens, it was decided that rice, sugar, salt, oil and milk should be provided to affected people. This aid, which was supposed to provide provisions for eight months (October 1997 to May 1998), was organised by a ‘crisis committee’, the SATLAK PBA Tingkat II Jayawijaya, led by the Bupati himself.9

The report proposed the construction of distribution centres to store the aid prior to its movement to more isolated villages. So at the beginning of November, a SATLAK team arrived in Holuwon. This team remained until February 1998, when World Vision International took over the job of aid distribution10. Originally, the SATLAK representative asked the villagers to construct a depot, but a small building on the edge of the landing strip, belonging to the MAF company, was used instead. The MAF company requested, by means of their local intermediary, that the 500-metre-long strip at Holuwon be repaired so that larger aircraft could land there. The single-engined Cessnas, which used the strip regularly, could land and take off from one end of this very steep strip. To allow Twin Otter aircraft to land it was necessary to clear and put sand on the lower part of the strip. After working for several weeks, at very poor pay, and already weakened as a result of the drought, the villagers saw the first Twin Otter arrive at Holuwon on 22 December 1997.11

The SATLAK representative’s responsibility was to verify that the aid had been properly deposited in the MAF store, and then to distribute it among all the villages of Desa Holuwon. Specific days were set aside for the distribution of food to each village and people came on foot to pick up their allocation. The amount of aid received was based on a report provided by village leaders on the state of the gardens and the number of people affected. One outcome was that the populations of certain villages rapidly doubled. Other smaller villages that depended on the goodwill of larger villages (usually those with a church where the pastor could handle distribution) found themselves left off the lists, often because of local rivalries or other conflicts between the villages.

In December 1997, five Indonesian soldiers arrived and moved into an
empty building at Holuwon; their mission was to assure the security of the aid distribution. After a little over a month, following a number of minor disputes with the villagers they were supposed to assist, they returned to Wamena. Throughout the crisis, numerous people came to Holuwon to conduct studies or to verify the state of the drought but their findings were never communicated back to Holuwon.

Although basic food items had been itemised by the *Bupati*, I saw at Holuwon many items that were not on his original list: they included boxes of bottled mineral water, sweet biscuits, clothes, cooking utensils (pots and Dutch ovens), dehydrated noodles, and concentrated milk. The milk was not provided in sufficient quantities to be useful. The water bottles frequently burst from being dropped onto the ground, or were consumed at the airstrip by workers handling the aid.

Maize seeds for planting were also supplied. These had been treated with a fungicide and were poisonous to humans. The pilot who delivered the seeds only just remembered to mention this to the people before flying off back to Wamena. A few sacks of sweet potato vines for planting also arrived. The usefulness of providing small amounts of seeds and vines for the planting of new gardens is questionable. The SATLAK representative did what he could to get a consensus among villagers over the opening of a large collective garden as a method to rapidly replace any dependence on aid once the crisis was over. However, in a region where the right of land use is very strictly defined, this was no simple task. I do not know what became of his proposed collective garden because I left Holuwon before planting began.

From the end of December 1997 and for several months afterwards, up to five tons of rice arrived in Holuwon every day. This profusion of food and other items led to diverse reactions among the villagers. Not only were rivalries between the different villages exacerbated but, more seriously, disputes broke out within lineage groups and even within members of the same group within the village. Once this point was reached, the only social structure that remained intact in the fight for food aid was the nuclear family. It was most surprising to see members of the same lineage group fighting over a few clothes or some pots. Aid distribution days sometimes became days of fist fights, with certain social groups trying to obtain the greatest advantage. These struggles for aid reached a climax when the assistant pastor of Holuwon, the *gembala*, got his hands on a couple of kilograms of sugar and took refuge with it in the MAF offices. An *ab lohon* physically removed the sugar from him so that it could be equitably distributed, but a few days later, by way of reprisal, the *gembala* refused to baptise the *ab lohon*’s son.

Instead of large amounts of aid at the time when people had the greatest need for it, the aid was spread out over a long period (a source of later problems), because countries contributing did not coordinate their efforts or were slow to respond. According to a calendar of the famine described by Ballard (2000, 140–141), Australia, Ireland, Germany, USA, New Zealand, the EEC and finally Australia again, gave funds for humanitarian aid between the end of October 1997 and May 1998. When I returned to Wamena in April 1998, I
assisted in an operation run by the Indonesian and Australian defence forces code-named ‘Operation AusIndo Jaya 98’. This operation, backed by US$10 million, was implemented despite steady and regular rains since December 1997. Moreover, at this time the first post-drought harvest of sweet potatoes was about to become available. While it is true that the effects of the drought were felt differently in different parts of Irian Jaya and it is possible that certain areas were still experiencing difficulties, at Holuwon this assistance was no longer required. It also coincided with the ending of a similar operation in Papua New Guinea, where the crisis was assessed to be over (Ballard, 2000: 143).

The arrival each day in the village of tons of rice and other foodstuffs had an hypnotic effect on the Yali people. When the Twin Otter aircraft were landing regularly at Holuwon, the gardens were deserted and villagers congregated along the edges of the landing strip to watch the landings and take-offs of the planes and to view the cargo.

There is only one primary school (Sekolah Dasar) at Holuwon and to continue on into secondary education, children must go to Wamena and remain there for the school year. To aid their children financially parents will often send them products from their gardens and occasionally a pig for them to sell by the piece. Transfers of this type, at a much reduced rate, continued during the drought until the Chief of the District, advised by MAF missionaries, prohibited the villagers from sending fruits, tubers and other vegetables to Wamena.

A paradoxical situation developed around goods coming the other way, from Wamena to Holuwon. The year 1997 corresponds to the period of the Asian economic crisis, which severely affected the Indonesian economy. The rupiah fell sharply in value. In Wamena prices of store bought goods soared, basic foods became scarce and cooking oil was rationed to one litre per person per day. But the MAF-Wamena depot was well stocked with humanitarian aid and the villagers of Holuwon were receiving free 200-litre drums of cooking oil. Things that were almost unobtainable 70 km away at Wamena were being distributed at no cost in the villages. The Yali believed the receipt of these goods was their right and they protested violently if they received less than the amount expected. This situation continued even after rain fell and the famine was over, with the same profusion of diverse products being sent to Holuwon. It led to a reluctance on the part of the villagers to return to cultivating their gardens once it became possible. They clearly believed that the manna coming from the sky was going to continue for some time yet.

The Yali did not develop ‘cargo cult’ beliefs about the food being received, however. They were perfectly aware of the relationship between the state of their gardens and the arrival of humanitarian aid. When, at the beginning of December, the Camat of Ninia came on foot to Holuwon, he passed by the gardens. Seeing the leaves of the sweet potatoes refreshed by two weeks of rain, he announced to the villagers that their gardens were again productive, that the Yali had lied to the authorities to receive the aid and he was going to fix that and get everything back to order. It took a lot to convince him that green leaves alone do not signify the presence of the edible tubers, and that
the food shortages would not be over until the new gardens were producing tubers, something which would take at least four months.

YALI RESPONSES TO THE DROUGHT

The Yali did not become passive victims of the drought. They made a number of responses to the prevailing situation and did not just sit and wait for humanitarian aid to arrive from Wamena. The minute the first rains began to fall many people began to replant their gardens. At the beginning of December 1997 the first gardens were ready for planting. Conscious of the urgency of the situation, to speed things up, the Yali cleared gardens in places of low forest regrowth. In this way they avoided losing time felling trees and drying the branches and scrub. Sweet potato vines from old gardens, rejuvenated by rain, were planted into long ridges with green matter incorporated into them as compost. These first plantings were ready for harvesting in March and April 1998.

The Yali also spent a great deal of time trying to understand the cause of the catastrophe. They decided it might have been due to insufficient attention to their religious duties and they tried to find a way to remedy the situation. In December 1997 a little before Christmas, they gathered for a collective festival and pigs were sacrificed, something which had not been done during the Christmas festival the year before. Then, at the time of New Year, dances went on the whole day in celebration of the beginning of the new year and with the hope that the previous disastrous year was well behind them.

They also made strenuous efforts to reduce the risk of fire. During the entire drought period up until the first rains (that is from April until November 1997), it was forbidden to light fires in the gardens or the forest. In this way, they protected their territory against fire for eight months. When, following the mistake of the Danggema youth, a fire did occur, the Yali said that no compensation would be required of him or his family because the fire was probably caused by a ghost. The fire was spoken of as a living thing, independent of all human actions. This belief was so strong that at night in the haunted forest that borders the Heluk river, men put out their torches when they approached the fire zones once the flames were in sight, so that the light would not attract the fire to their side of the valley. Everyone became silent, trying not to attract the attention of the ghost who is known to live there.13

Yet despite the best of the Yali’s efforts, this fire lasted for a week and did not end until the first rains dampened it down. In the face of such a persistent fire, people began to suggest it might have a supernatural cause or that its effects were prolonged because one of the villagers had cooked a sweet potato tuber directly in the flames of this literally ‘wild’ fire. The Yali drew a distinction between a ‘tame’ fire voluntarily started and controlled by humans, which could be used to cook food, and a fire that began almost spontaneously, which was feral and out of the control of humans. Compensation could not be demanded for this sort of fire, since the flames took on a life of their own, or were created and encouraged by evil spells. On the other hand, as soon as the fire was out the villagers of Danggema began planting sweet potato gardens in the
ashes. Once extinguished the fire lost its malevolent power and the men set to work incorporating the burned area into their land by making gardens.

The inhabitants of Holuwon had the occasion to aid refugees coming from the Soba area. The village of Soba belongs to the Hupla group who have not always enjoyed good relations with the Yali. When, in February 1998, the Hupla came to ask for refuge on Yali territory, they were accepted and were provisionally lent a piece of the forest for cutting, relatively far from Holuwon (about four hours’ walk) but visible from the Yali village of Hwaerek. In this way the Yali could keep an eye on the newcomers. The men of Holuwon even went to help the Hupla cut the forest and construct houses in their new village. People said the land of this new settlement, called Ninioho, which in Yali means ‘ant hill’, was fertile even if water was a little difficult to access. The decision to accept the Hupla onto Yali territory was taken in common. What became of the Hupla once the drought was over is not known: did they return to their own territory or did they remain in the region of Holuwon? Their acceptance at Holuwon illustrates another aspect of the complex responses of the Yali to drought.

CONCLUSIONS

Under certain conditions, when a natural catastrophe occurs that places the local populations in peril, humanitarian aid is justified. However, it should only enable people to survive until they no longer have need of aid. The difficulty lies in assessing what is urgent humanitarian aid in the terms of the people to whom the aid is intended. In 1997 at Holuwon, the humanitarian aid was provided for three main reasons: (1) a desire to aid people in difficulty but without a true understanding of their needs; (2) a political desire ‘to do something’ in response to public opinion; and (3) the desire of certain companies to use the occasion as a form of publicity for their products, which were later the subject of media coverage.

Between the indifference to the distress of the people in 1991 (Anon, 1992) and the profusion of food and other objects sent to the same people in 1997–98, there must exist an intermediate path by which only those things needed are delivered. It is important to find out what are the real and immediate needs of the people as well as how long this need exists. To send aid at a time when it is no longer necessary is not only futile; it can also have an adverse effect on the society that receives it.

To evaluate the needs of the people, it is essential that a group of experts be sent to the region and that they engage in a close and long-term collaboration with the people affected. It would also make sense to consult with any researchers who happen to have worked with the people affected. Researchers could potentially provide a link between local people and aid organisations or donor countries. The people in need should not be seen as having only one role, to receive aid. Rather they should participate in the design of the aid package and its distribution. The evaluation of the type, quantity and duration of the aid should be done in close collaboration with the people who are to
receive it. The response to the drought and the famine should not only involve the sending of tons of food each day to affected villages. It should also involve an understanding of their comprehension of the nature of the disaster and should take into account the implications for them of the provision of aid. Such an approach would help ensure that what is required, and the manner of its provision, does not create in its turn a human catastrophe.

ACKNOWLEDGEMENTS

I am deeply obliged to Dr Dawn Frame for the translation of this article and to the two reviewers whose comments greatly improved the text.

NOTES

1 Scientific information concerning Irian Jaya is minimal primarily because of the numerous difficulties confronted by researchers who wish to work there. The difficulties originate mainly from the Indonesian authorities themselves, who jealously guard this territory which represents for them an abundant source of timber and minerals but for which their sovereignty is contested. Attempts by scientists to conduct research in Irian Jaya require that they pass through an administrative obstacle course created by the Indonesian authorities with the excuse that there is a lack of security for foreigners. Maps and air photos of Irian Jaya are also very difficult to obtain, whereas neighbouring Papua New Guinea is mapped and photographed at a range of scales from 1:100,000 to 1:500,000 (Ballard, 2000: 139).

2 The villages that depend administratively on Holuwon are grouped under the name of Desa Holuwon, and include approximately 5,000 people. The Desa is a division of the sub-district or Kecamatan; Desa Holuwon is part of the Kecamatan Ninia. The village chief, or Kepala Desa, is the representative of the government at the level of the Desa.

3 Gereja Injil Di Indonesia: The Evangelical Baptist Church of Indonesia, a member of the RBMU (Region Beyond Mission Union).

4 The Jayawijaya district, which includes about one-third of the population of Irian Jaya, was particularly affected by the drought, especially in the region of Soba (Kurima sub-district) and between Wamena and Habema, at high altitudes where the dried-out vegetation allowed fires to spread rapidly (Ballard, 2000).

5 Whereas in 1982 and 1994 the fires were ‘limited’ essentially to Borneo and Sumatra, the fires of 1997 reached the East of Indonesia, notably Irian Jaya (Durand, 1999).

6 The Papua New Guinea drought assessment was based on 5 categories of severity. Food relief was delivered to areas that fell into Categories 4 and 5.

7 At least 18 species of edible ferns are named by the Yali, most of which are Cyathea sp.

8 Ghosts are usually females that have been expelled from Yali society for committing a serious misdemeanour. These pariahs become mungguat, and have the power to take the form of animals and to attack men that venture into the forests.

9 Satuan Tugas Pelaksanaan Penanggulangan Bencana Alam Tingkat II Jayawijaya: Work Unit for the Achievement of the Fight against Natural Disaster at Level II Jayawijaya. This committee, responsible for the distribution of the humanitarian aid in the regions touched by the famine, was dependent upon the Satkorlak PB, who was in charge of coordinating the aid at the provincial level (Ballard, 2000).

10 World Vision International is an international religious organization involved in providing development aid.

11 The aircraft was owned by MAF in Papua New Guinea. This aircraft was nicknamed the elen biren (two heads) by the villagers because of its two engines; many Yali had never
seen a twin-engine plane before. The Twin Otter planes were lent by MAF in Papua New Guinea to assist with the distribution food in Irian Jaya because PNG villagers were spending all their spare cash on buying food and the Australian defence forces insisted on using their own aircraft, mainly Blackhawk helicopters, to deliver food to isolated villages (Allen, 2000).

12 The Camat is the chief of sub-district (Kecamatan). He is dependent upon the Bupati, the chief of the district (Kabupaten). The Kepala Desa, or the village chief takes orders from the Camat. Holuwon is dependent upon Kecamatan Ninia.

13 The forest of Alukwanduk, close to the fire, is haunted by the ghost of a woman, one of three sisters who were expelled from the village of Bangga because they went into the gardens when there was a ritual taking place in the village. Women and non-initiated children must stay in the family home at these times. These sisters sought refuge in a different forest (as they had no longer any social status they could not live together) and their ghosts often attack men who are lost in their forest. The close proximity of the fire to the haunted forest was not lost on the Yali who assumed malicious intent on the part of the ghost.

14 The Bupati of Jayawijaya argued that the 1991 famine was the fault of the people themselves and no assistance was provided. This same Bupati, in 1997, alerted the Indonesian government to the famine in his district.

REFERENCES


