

***Report on the Mapi River Survey
South Coast of Irian Jaya***

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Abstract

This report summarizes sociolinguistic research carried out from November 20–29, 2000 in Mapi River villages in southern Irian Jaya. The research was conducted in Kouh, Mandobo, Obaa, Edera, and Nambioman Bapai (Nambai) Districts of Merauke County. The purpose was assessment of language development needs of speakers of the Jair, Kombai, Auyu, and Yaqay languages through the administration of sociolinguistic oral questionnaires and the transcription of wordlists.

Participants: Ron Kriens, SIL; Willem Rumaseb, SIL staff; Yunita Susanto, Kartidaya.

Area Surveyed: The Mapi River in Merauke County,¹ Irian Jaya, Indonesia.

Languages Surveyed: Primary focus on Jair, Auyu, Yaqay, and Kombai.

Data obtained: Wordlists, sociolinguistic information and informal observations.

1. INTRODUCTION

This report summarizes the findings of a survey carried out in the villages along the Mapi River in southern Irian Jaya from November 20–29, 2000. This survey covered parts of Kouh, Mandobo, Obaa, Edera, and Nambiomani Bapai (Nambai) Districts.² Sociolinguistic oral questionnaires were administered and wordlists were obtained.

1.1. *Previous Work*

To our knowledge, there is little intensive linguistic work that has been done previously along the river. However, Father Drabbe researched the languages spoken along the river, including the languages of Auyu and Yaqay, in 1954. Boelaars also made a study based on the whole of the published and unpublished material collected by Father Drabbe on the languages of south coast of Irian Jaya (Wurm 1954:301). Wurm also mentioned in his article that there are two dialects of Yaqay.

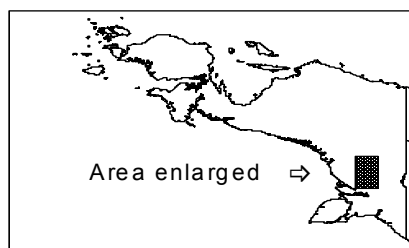
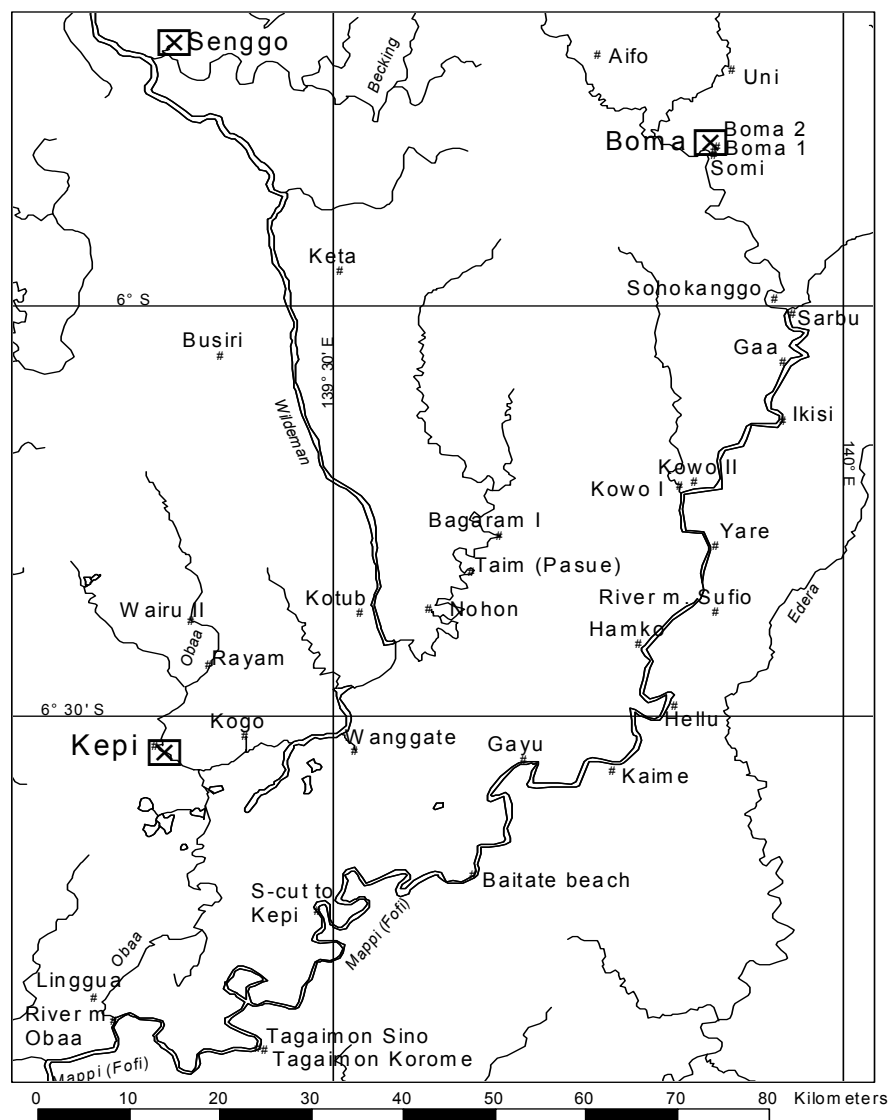
We also got information in one area we surveyed that J.P.D. Groen and L. de Vries have done some work in the Kombai language.

¹*County* is being used in this paper to translate the Indonesian term *Kabupaten*.

²*District* is being used for the Indonesian term *Kecamatan*.

2. SURVEY AREA

2.1. Map of Survey Area



2.2. *Table of Villages (information from observations and oral questionnaires)***Table 1**

Village	Language	Population	GPS co-ordinates	
Kouh District:			South	East
Aifo	Kombai	140	5°41.784	139°45.606
Uni	Kombai	299	5°42.890	139°53.547
Boma 2	Jair	331	5°48.459	139°52.685
Boma 1	Auyu Darat	400	5°48.748	139°52.455
Somi	Auyu	450	5°49.047	139°52.475
Mandobo District:				
Sohokanggo	Auyu	1,893 (?)*	5°59.567	139°56.051
Gaa	Auyu	unknown	6°04.079	139°56.508
<i>Makmur Village:</i>				
Sarbu	Auyu	165	6°00.622	139°57.071
Ikisi	Auyu	275	6°08.358	139°56.551
<i>Sadar Village:</i>				
Kowo II	Auyu	unknown	6°12.762	139°51.298
Kowo I	Auyu	600	6°13.105	139°52.492
<i>Bangun Village:</i>		1039		
Yare	Auyu	484	6°17.421	139°52.606
(River mouth to Sufio)	-		6°22.201	139°52.606
Hamko	Auyu	380	6°24.501	139°47.987
Hellu	Auyu	unknown	6°28.895	139°50.183
Obaa District:				
Kepi Village (capital)	(mixed)	634	6°31.861	139°19.524
(Kepi airstrip)	-		6°32.542	139°19.903
<i>Rimba Jaya Village:</i>				
Gayu	Auyu	563	6°32.868	139°41.255
Kaime	Auyu	158	6°33.647	139°46.479
Baitate landing	-		6°41.246	139°38.293
Nambai District:				
Linggua	Yaqay	400	6°50.067	139°15.939
(Mouth of Obaa R.)	-		6°51.741	139°17.064

Edera District:				
Tagaimon Sino	Yaqay	350	6°53.694	139°25.616
Tagaimon Karome	Auyu	478	6°53.903	139°25.952

**Information from government sources Data Perkembangan Pelaksanaan UU No.5 tahun 1979, Kabupaten Merauke Propinsi DATI I Irian Jaya, tahun 1999.*

This table represents the approximate order in which we visited the villages on this survey, from north to south along the Mapi River.

3. OBSERVATIONS

The Mapi River is one of the main rivers in Merauke County. It flows north to south, and basically goes through six districts. They are, in order from north to south, the districts of Kouh, Mandobo, Edera, Jair, Obaa, and Nambiomani Bapai (Nambai). However, our team has no results for the Jair District, since we did not find any villages along the river in this district. We started from Boma Village in the Kouh District, went along the river, and finished at Kepi, capital of the Obaa District.

This is a general overview of the demographic information and nonlinguistic observations our team made during the survey trip. This information will be useful in the future for SIL teams and others who wish to travel to this region to visit, work, or live. Possible community development needs within this area can also be inferred from these observations.

The survey team collected information through observations, through talking with and inquiring of local people in the villages visited, and through a short oral questionnaire made specifically for the governmental head of the village. This questionnaire was utilized with the village heads in the following villages:

- Kouh District: Boma I, Boma II, Somi, Aifo, and Uni.
- Mandobo District: Ikisi, Sarbu, Kowo I, Kowo II, Yare, Hellu, Hamko, Sufio.
- Obaa District: Kaime, Gayu.
- Nambai District: Linggua.
- Edera District: Tagaimon Sino, Tagaimon Karome.

3.1. *Basic Demographic Information*

Table 2 shows that the combined population of the five districts along the Mapi River is over 56,000.³ However, our personal observation suggests that these figures are probably low.

Table 2

DISTRICT	NUMBER OF VILLAGES	POPULATION
Kouh	27 villages	7,700
Mandobo	13 villages	7,500
Obaa	27 villages	15,000
Edera	30 villages	16,000
Nambai	23 villages	10,000

3.2. *Communications and Electricity*

There are SSBs (single side-band radios) only in Boma I and II in Kouh District. They belong to an MAF pilot, the MAF hangar, and the government-run health clinic. People from Somi go there for radio contact. In Rimba Jaya Village (Gayu), the SSB belongs to the government-run secondary health clinic. The rest of the villages we visited did not have SSBs.

Among the villages we visited, Boma has electricity from a generator which belongs to the church. Also Kowo II has a generator which is owned privately by two people.

In Kepi, as the capital of the Obaa District, there is a post office, telephone service, and electricity. Electricity is from the government-run electric company and is on from 5:30 p.m. until 10:00 p.m.

3.3. *Transportation*

3.3.1. Land Transportation

There is no land transportation available at the moment to go from village to village except on foot, which takes days.

3.3.2. Water Transportation

Canoe is the main mode of transportation for the local people. Motorboats are mostly owned privately by a few people in villages such as Boma I or Kepi (the capital of the Obaa District), or they belong to the government-run health clinic. It is possible to charter a motorboat from them.

³This information is gathered from government sources "Data Perkembangan Pelaksanaan UU No. 5 thn 1979, Kabupaten Merauke Propinsi DATI I Irian Jaya, tahun 1999."

Some villages were located far up the river, such as Aifo and Gaa. Other villages, such as Sufio, were unreachable because there are too many submerged trees in the river.

3.3.3. Air Transportation

Travel by float plane to those villages is another option. This service is provided by MAF, but it also depends on river conditions. There are airstrips in Boma and Kepi (the airstrip in Kepi had been closed for repairs when we returned on a subsequent survey in March 2001).

3.4. *Health and Medical*

The main diseases reported in villages along the Mapi River were malaria, vomiting and diarrhea, and TB. We also observed that there were many people whose teeth are missing. This is true even among young people. This might be due to diet, nutrition, water or dental care.

Most villages use well, rain water or rivers for washing, bathing, and drinking.

A small number of villages we visited have toilets, the personal property of a village resident.

Some villages have either a government-run health clinic or government-run secondary health clinic with a few health workers, such as in Boma, Uni, Gayu, and Hamko. People who live in the other villages have to go either to the closest village which has a health clinic or to the capital of the district, such as Bade or Mur. However, in many villages, there are midwives, whom the people come to for medical help when it is needed.

3.5. *Livelihood, Economy, and Influence of Outsiders*

The main livelihood of people living along the Mapi River is gardening and hunting. The staple food for most people is sago. In some villages, people plant taro, coconut, banana, jackfruit trees, and other kinds of trees such as coffee and cashew. The people do not recognize planting seasons. The harvest is always enough to supply the people's needs. It is reported that a very small number of people work outside the village like in the capital of the district. They work at a wood company, a shipping company, in the army, or in the civil service.

A few villages have a village market, like in Boma and Somi. The rest depend on traders from Bade or Mur who come to those villages by boat sometime during the week. These traders have canned and other specialty foods, bottled water, household items, drinks, school supplies, and some medicines available. In some villages, some people even had a few pieces of furniture in their homes.

3.6. *Religious Situation*

The predominant religion practiced in this region is Catholicism. A few villages are predominantly Protestant, such as Boma, Somi, and Hamko. Some villages have both Catholic and Protestant churches, such as in Sarbu and Hellu. Both Kombai villages, Aifo and Uni, are Protestant. But in Hamko there were two Protestant churches.

Religious leaders, especially in Catholic areas, usually live in the village. There is a Protestant missionary, whose base is in Boma, who travels from village to village to train local religious leaders.

3.7. *Education*

We obtained specific information about education from oral questionnaires administered to teachers. In eight villages—Boma, Hellu, Yare, Kowo II, Kaime, Gayu, Linggua, and Tagaimon Karome—a total of eight teachers were interviewed. In some cases, we were not able to get complete information about class attendance since the head of the school was not in the village all the time. Not every village has an elementary school. Children from one village sometime have to go to a neighboring village for school. Typically, all children of school age enter school and sometimes complete six years of elementary school.

On the other hand, in some villages the elementary school is often closed because there is no stable teacher present. In Yare, the people try to solve this problem by administering tutorial classes conducted by three local people. At the moment, they only teach numerals and the alphabet. There is a junior high school in Kouh, Bade, and Kepi. The nearest high schools are located in Bade or in Kepi. It is reported that most students were not able to continue their education to middle school. Even if they do, only few of them are able to finish because of financial reasons.

3.7.1. **Class Attendance**

The following chart summarizes the number of students that attend each class.

Table 3

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Boma	52	41	36	29	6	11	164
Hellu	61	19	17	-	-	-	>97
Kowo II	30	44	20	11	5	7	117
Kaime	30	18	20	-	-	-	>68
Gayu	23	19	21	8	6	14	91

The table above shows us that class attendance tends to decrease when it goes to the higher levels. Then the number goes up again for grade six. The reason might be because some students who fail the government final exam have to repeat the class. It

seems that education in the Mapi area is in very serious condition. Not every village has a school which runs regularly. There is always a problem of not having teachers.

3.7.2. Language Use in School

The following charts shows the answers teachers gave to various questions regarding language use in school:

Table 4

Village	Language of instruction	Language children use during play at school	Length of time to understand Indonesian	Length of time to become fluent in Indonesian
Boma SD	Only Indonesian	Indonesian	-	3 years
Hellu SD	Only Indonesian	Auyu	able to understand Indonesian in class 1	-
Kowo II SD	Only Indonesian	Indonesian	-	3 years
Kaime SD	Only Indonesian	Indonesian and Auyu	able to understand Indonesian in class 1	-
Gayu SD	Only Indonesian	Indonesian and Auyu	Depends on teacher. It is necessary to know the teaching method.	at least 3 years
Linggua SD	Only Indonesian	Indonesian	able to understand Indonesian in class 1	1 or 2 years
Tagaimon Karome SD	Only Indonesian	Indonesian and Yaqay	able to understand Indonesian in class 1	2 or 3 years

Although there are two elementary school teachers who are local people, only one of them tried to use the vernacular when she talked to students outside the class. Furthermore, it is reported that most schools restricted the students in using the vernacular in the school environment. This rule is applied to make the students understand Indonesian better in order to understand the lessons given in Indonesian.

Another reason why only Indonesian is used as the language of instruction is because most teachers are not local people. They do not know how to speak the language.

The results of the questions about the length of time it takes a student to comprehend and speak Indonesian are ambiguous. Each teacher said that all children were able to speak and understand Indonesian already by the time they entered the school. However, it can be concluded that it does take some amount of time for students to comprehend and speak fluently in Indonesian. This fact probably indicates that they do not use Indonesian in the home.

4. ORAL QUESTIONNAIRES

4.1. *Group Questionnaire*

4.1.1. Procedure

Fourteen group questionnaires were administered. Questionnaires were taken in Boma I and II, Somi, Aifo, Uni, Sarbu, Ikisi, Kowo II, Yare, Hellu, Hamko, Gayu, Kaime, and Tagaimon Karome. We administered the questionnaire to groups of adult men and women of a variety of ages who were native speakers and willing to answer some questions about their language. Sometimes one surveyor asked the questions and the other wrote down the answers. The interviewer tried to encourage each person to answer, but the conversation was dominated by few a people, especially the village head, most of the time. Each questionnaire took about one hour to complete.

In Sarbu, we administered the questionnaire to only two men who were native Auyu speakers and were willing to answer some questions about their language. This happened because most of the people went to the jungle, leaving the village almost empty.

4.1.2. Results

4.1.2.1. Development

All leadership (religious, civil, and traditional) in each village we visited is from within the tribe, with the exception of the teachers and the head of the school. All villages reported that their change of leadership was by election. With regard to physical health, most groups (nine out of fourteen) reported that the people seek traditional medical help (witch doctor, herbal remedies) as the first option instead of professional medical help. For possession by spirit, only two villages mentioned other alternatives, like going to the hospital (Sarbu) and prayer (Gayu). The rest would go to a traditional healer. None of the villages have a special development committee; development is organized mostly by the village officials such as a neighborhood leader. There are no natural phenomena that inhibit transportation to nearby villages.

4.1.2.2. Language use

Table 5 shows self-reported data on what language people use in any domain.

Table 5

Domain	Boma I	Boma II	Aifo	Uni	Somi	Kowo II	Sarbu	Hellu	Gayu	Kaime	Yare	Ikisi	Hamko	Tagaimon Karome
Home	B	V	V	V	B	B	B	V	B	V	V	V	V	V
w/ Friends	V	B	V	V	B	B	B	B	B	V	V	V	B	B
Garden	V	V	V	V	B	B	V	V	B	V	V	V	B	V
Market	V	V	-	V	B	N	N	N	-	N	N	B	-	B
Clinic	N	N	N	-	B	N	N	N	B	N	-	B	-	B
School Recess	N	B	-	B	B	N	B	B	B	N	B	V	B	B
School Instruction	N	N	-	N	N	N	N	B	N	N	N	N	B	B
School Explanation	N	N	-	N	N	N	N	N	N	N	N	N	B	B
Feast	V	V	V	V	V	V	B	V	B	V	V	V	V	V
Announcements	V	V	B	V	B	B	B	B	B	B	B	B	B	B
Meetings	N	V	N	V	B	N	B	N	N	N	B	B	B	V
Public Prayer	V	N	B	B	B	N	N	B	N	B	N	B	B	N
Worship	N	N	N	-	N	N	N	N	N	-	N	N	B	N
Sing Hymns	N	N	N	B	N	N	N	B	N	B	B	B	N	N
Preaching	N	N	V	B	B	N	B	B	B	B	B	V	B	N

N=National V=Vernacular B=Both

The table above shows us that the vernacular seems to be widely used in the home. In other domains where the participants are mostly from inside the group, such as in the garden and among the people themselves, none of the villages use national language exclusively. The national language is widely used in the school and in the church.

From table 5 above it seems that the people tend to be bilingual. The use of Indonesian has apparently increased in all domains.

4.1.2.3. Language change

Reported language use among young people was very similar among all the villages. Most villages reported that the young people do not use any other language more than the vernacular, but they do mix the vernacular and the national language.

Table 6

	Boma I	Boma II	Aifo	Uni	Somi	Kowo II	Sarbu	Hellu	Gayu	Kaime	Yare	Ikisi	Hamko	Tagaimon Karome
Do they use other language more?	n	Jair, Kom-bai	Jair	n	N	n	n	n	n	n	n	n	n	Yaqay
Mix w/ other lgs	n	n	N	n	N	n	n	n	n	n	n	n	n	N
Mix w/ NL?	y	y	Y	y	Y	y	y	y	y	y	y	y	y	Y
Good?	n	y	Y	y	Y	y	y	y	y	y	y	y	y	Y
Why mix with NL?	VL seems to be disappearing	to be more understandable	there are Indonesian words which do not exist in Kombai	To be more fluent in Indonesian	To be more communicative with non-Auyu speakers	-	get used to using Indonesian	To be more clear	to be more understandable by others	get used to using Indonesian	to be more fluent in Indonesian	to be more understandable by others	help each other for understanding	to be more communicative

Table 6 shows that most young people in every village report mixing the vernacular language with Indonesian. Only one group (Boma I) out of fourteen thought that it was not good to mix Indonesian and the vernacular, because “the vernacular might be disappearing.” The rest said that it was good to mix both languages. One common reason they stated was that it would help to communicate better, especially with outsiders. Their children also need to know the national language in order to get along better in life. From the table, we see a tendency for people to be more and more bilingual.

4.1.2.4. Language preservation

Factors influencing language preservation, such as marriage to outsiders, loss of students to the city, and migrants living among them, are implied in the results of the chart above. Although people most frequently marry within their tribal group, there are no restrictions on whom one may marry, and there are those who have married outside their group. The most frequent responses to the question of which tribe other than one’s own villagers married were the Muyu, Marind, and Yaqay.

Virtually every village had migrants living in the midst of the people. Most migrants live in the villages because of being teachers or because of marriage. Three villages have business people living there. It was reported that most migrants were learning the local language and that this was good for communication. In four villages, Auyu was actually reported as being used to speak with migrants.

Table 7 shows factors that may affect language preservation efforts in each village.

Table 7

	Boma I	Boma II	Aifo	Uni	Somi	Kowo II	Sarbu	Hellu	Gayu	Kaime	Yare	Ikisi	Hamko	Tagaimon Karome
Marry which tribe?	Kombai, Mandobo, Yaqay, Citak	Auyu, Kom-bai	Citak	Muyu	Wam-bon, Muyu	Yaqay, Muyu	Muyu	Marind	Marind, Muyu, Makasar	Auyu	Man-dobo, Kombai, Yaqay	Muyu, Mandobo	Yaqay, NTT, Muyu	Auyu
Restrictions?	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Graduates stay in town?	y	n	-	n	n	n	-	n	y	-	y	y	y	n
Why?	town is more developed	city life is expensive	-	city life hard	city life hard	economic reasons	-	-	better job	-	city is busier	city is more developed	city is more developed	jobless, city life is expensive
Migrants?	few	6 people	n	-	1 person	2 households	-	1 person	y	1 household	3 households	n	n	1 household
Why here?	Missionaries, traders	traders	-	-	marriage	teachers, marriage	-	marriage	marriage, mantri, teacher	teacher	marriage	-	-	traders
Where from?	Dutch, Makasar	Makasar	-	-	Muyu	Kei, NTT	-	Marind	Kimaam, Muyu	Muyu	Mandobo, Muyu	-	-	Bugis
What lg. used to talk with them?	Indonesian	Indonesian	-	-	Indonesian, VL	Indonesian	-	Indonesian	Indonesian, VL	Indonesian	Indonesian, VL	-	-	Indonesian, VL
They learn VL?	n	n	-	-	y	n	y	y	y	n	y	-	-	y
Is that good?	n	y	-	-	y	-	-	-	y	-	y	-	-	y
Why?	people want them to learn VL	depends on the individual	-	-	better communication	-	-	-	be able to talk about secret	-	should know VL if they live here	-	-	better communication

4.1.2.5. Dialectology

4.1.2.5.1. Jair language

The men from Boma I insisted that they are not *Jair*. *Jair*, meaning ‘fierce people’, was a name given to them by the Dutch. They do not like it. They call themselves *Auyu*, and the language spoken is Auyu Darat. But people in Boma II do not mind being called *Jair*, and they admitted that they spoke *Jair*. Both groups in Boma I and II said that they spoke exactly the same language as in the other village.

The group in Boma II added that there was a village in Kouh called “Jair” whose language was the same as theirs. Both groups said that the language spoken in Somi, Sohokanggo, Sarbu, and Ikisi (areas down the Mapi River) were slightly different from what they spoke, but that they could understand each other.

The group in Boma II said that they could not understand the language spoken in Baitate and Kaime (areas close to the mouth of Obaa River). They called this group Central Auyu /Coastal Auyu.

People in Boma II understand Kombai, also, since there is a lot of intermarriage in this village between Jair and Kombai.

4.1.2.5.2. Kombai language

The villages we surveyed which spoke Kombai were Aifo and Uni. The group in Aifo said that the language they spoke was the same as the language spoken in Uni and Fefero. However, the group in Uni did not mention this. They named Wanggemalo, Fefero, and Yaniruma (villages in the Kouh district) instead as villages which spoke the same language as they did.

The group in Aifo said that the language spoken in Yaniruma and Wanggemalo was slightly different from theirs, but they could understand it. In Uni, the people mentioned Kouh Village and Kawagit Village (Kouh District), which spoke a bit differently than they did.

Both groups said that they could not understand Korowai at all in such villages as Ambuage and Mangge (the northern part of the Kouh District).

4.1.2.5.3. Auyu language

The Auyu language covered the largest part of the area we surveyed. Based on the information we gathered from the group oral questionnaires and the informal interviews taken in thirteen villages, we tentatively posit that there are at least six dialects of Auyu. Possible dialect groupings are shown in table 8.

Table 8

	Somi	Sohokanggo	Sarbu	Kowo II	Hellu	Gayu	Kaime	Hamko	Sufio	Ikisi	Yare	Kowo I
Somi		E	E	E			D					
Sohokanggo	E		E	E								
Sarbu	E	E		E							D	
Gaa	E	E	E	E								
Kowo II	E	E	E						D	D		
Hellu				D		E	E					
Gayu				D	E		E	D				
Kaime				D	E	E						
Hamko				D	D		D		E			
Sufio				D								
Ikisi			D	D	D				D		E	
Yare			D	D	D		D		D	E		
Kowo I				D					D			
Sepu	E		E	E							D	
Honya	D		E	E								
Haku	E		E	E								
Gaa	E		E	E								
Keta				D								
Feta				D								
Boma I & II				D	D						D	
Nohon	D			D								
Baitate				D	D	E	E	D				
Menya				D								
Taim				D				D				
Wonggi				D							D	
Bagaram				D								E
Bifo				D								
Nanu			D									
Ujungbe										E		
Kotiak								D				
Meto											D	
Sarapi											D	
Wagai											D	
Anggai											E	

E = Same dialect

D = Slightly different dialect

Based on table 8, we summarize the dialects as the following:

Dialect I⁴ (Somi, Sohokanggo, Sarbu, Kowo II):

The groups in Somi, Sarbu, and Kowo II reported that they spoke exactly the same language as the people in Sohokanggo, Sepu, Honya, Haku, and Gaa.

⁴ For the purpose of classification in this report, we use Roman numerals.

The group in Kowo II said that people in Keta, Feta, Hamko, Boma I and II, Ikisi, Yare, Hellu, Nohon, Baitate, Sufio, Kaime, Gayu, Menya, Taim, Bagaram, Kowo I, Wonggi, and Bifo spoke a slightly different language, but they could understand it. They could not understand Yaqay and Muyu at all.

The group in Sarbu said that they still could understand the language spoken in Ikisi, Yare, and Nanu (the border was from Ikisi south) since they were only slightly different. They could not understand people who spoke Muyu and Yaqay in Kepi and Mur.

People in Somi said that people from Honya to Nohon spoke a slightly different language, but they could understand it.

Dialect II (Hellu, Gayu, and Kaime):

People in Hellu, Gayu, and Kaime responded that they each spoke exactly the same language. However, the group in Gayu and Kaime mentioned that the language spoken in Baitate was also the same as theirs. The group in Hellu said that it was a bit different, but they could understand it.

The group in Hellu also mentioned that the language spoken in Hamko, Yare, Ikisi, and Boma I and II was a bit different, but it was still understood. People in Kaime only mentioned Hamko, Yare, and Somi in referring to villages where the language was slightly different. People in Gayu even said that they could understand all dialects of Auyu.

Dialect III (Hamko and Sufio):

The group in Hamko and one person (individual oral questionnaire) from Sufio said that they spoke exactly the same language. They also added that people in Taim and Kotiak Villages (in the Obaa District) speak the same language.

The person from Sufio said that people in Yare, Kowo I and II, and Ikisi spoke a slightly different language, but they could understand them. The group in Hamko gave the names of Gayu and Baitate as speaking slightly different languages.

Dialect IV (Ikisi and Yare):

The group of people in Ikisi said that the people in Yare and Ujungbe (Tanah Merah) spoke the same language as they did. The group in Yare also said that people in Ikisi spoke the same language as they did. They mentioned some other places as well, such as Anggai (Getentiri) and Ampera (Tanah Merah).

People in Ikisi said that the language spoken in Kowo II was slightly different, yet they could understand them. People in Yare gave more names of village where people spoke a slightly different language from theirs: Sarbu, Boma, Meto, Wagai, Sarapi, Sepu, and Wonggi. They even said that they could understand Kombai, which is spoken in Uni and Aifo.

Both groups said that they could not understand Yaqay, Asmat, and Korowai.

Dialect V (Kowo I):

People in Kowo I said the only village where people spoke the same language as they did was Bagaram (Obaa District).

Dialect VI (Tagaimon Karome):

It seems that people in Tagaimon Karome spoke a very different dialect from other villages along the Mapi River. That is why this area was put in its own dialect grouping. The matrix in section five shows it to be a different language from other Auyu dialects.

4.1.2.5.4. Yaqay language

No group questionnaire was administered in the Yaqay area although we visited the Yaqay villages of Tagaimon Sino and Linggua.⁵

4.1.2.6. Language attitude

People indicated that they were willing to give up something in exchange for books. *Work* was the most common response (8x); *money* (1x) and *produce* (5x) were also mentioned. Some villages did not give any response to these questions.

People in most villages stated that they thought the people of the village were ready for some kind of language program. People in nine villages thought the people of the village were ready for literacy and translation programs. People in Gayu were accepting of a translation program only, while people in Sarbu were accepting of a literacy program only. Four villages gave an estimate of the number of villagers that they thought might want to participate. The estimates ranged from fifteen to thirty people.

The people seemed to consider a vernacular literacy program appropriate for adults. In five villages for which data is recorded, people wanted to learn to read and write in the vernacular language, while people in six villages said they wanted to learn to read and write in both Indonesian and the vernacular. The people in three villages preferred to have a national literacy program for adults.

Regarding children, however, people had a different view. Those in almost half the villages stated that they would prefer to have their children learn to read and write in the national language. People in two villages preferred the vernacular, while the people in six villages responded that they would prefer to have their children learn to read and write in both the national language and the vernacular. There is no data for one village.

⁵Lack of information due to missing questionnaire forms.

Table 9. Language attitude

	Boma I	Boma II	Aifo	Uni	Somi	Kowo II	Sarbu	Hellu	Gayu	Kaime	Ikisi	Hanko	Yare	Tagaimon Karome
Ever a literacy program?	n	n	n	n	n	n	n	n	n	n	n	y	n	n
Write VL?	n	n	L. de Vries	JDP. Groen, L. de Vries	n	n	n	n	n	n	n	n	Arnoldus Nawi	n
Write books?	-	-	-	songs	-	-	-	-	-	-	-	-	songs	-
You want to read/write?	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Why?	It's our lg since our ancestors	more understandable	to understand better	not every body knows Indonesian	more understandable	we can understand better	we can understand better	can write secret things	?	?	Important	we can understand better	It's our own lg	-
What books?	songs, health book, Bible	Bible, catechism	traditional stories	-	-	religion	religion	traditional history, songs	prayers, religion, agriculture	-	culture	religion	religion	-
What give for them?	produce, work	produce, work	work	work	work	don't know	don't know	produce, money	work	-	work	produce	produce, work	-
Community ready for program?	Lit & trans	lit & trans	lit & trans	lit & trans	-	lit & trans	lit	lit & trans	trans	-	lit & trans	lit & trans	lit & trans	lit & trans
How many?	lots of people	lots of people	all people	30 people	-	15 people	a lot	30 people	a lot	-	30 people	Not definite	if there is no food, people won't come	-
You learn	V	V	V	V/N	V	V/N	N	V/N	N	V/N	V	V/N	N	V/N
KIDS learn	V	V/N	V/N	-	N	V/N	N	V/N	N	V	V/N	V/N	N	N

4.1.2.7. Language death

All groups have a strong belief that the people will speak the language the same in twenty years as they do today. In their opinion, their language will not become extinct even though children now use Indonesian more than the vernacular. In one village (Boma II), the group of people was sure that if the children remain in the village they would be able to use the language when they become adults.

4.2. Individual Oral Questionnaires

We took only two individual questionnaires from two villages. They were in Somi and Sufio. Results are displayed in table 8.

5. WORDLISTS

Wordlists were collected in Ikisi, Yare, Sufio, Kowo I, Sohokanggo, Somi, Boma I, Boma II, Hellu, Kaime, Karome, Aifo, Dagemon, Tagaimon Sino, and Linggua.

These lists of either 239 or 286 words were typed into *Wordsurv*.⁶ The words were grouped into lexically similar groups, based on Blair's principles given in *Survey on a Shoestring* and on Blair's rules modified specifically for Irian Jaya languages.⁷

5.1. Percentage of Lexical Similarity

The following matrix indicates the lexical similarity percentages among these villages.⁸

Auyu/Ikisi													
78	Auyu/Yare												
57	54	Auyu/Sohokanggo											
53	49	74	Auyu/Somi										
64	63	71	61	Auyu/Kowo I									
58	63	53	52	68	Auyu/Sufio								
42	46	42	38	48	51	Auyu/Hellu							
38	42	39	37	45	47	81	Auyu/Kaime						
49	48	43	44	40	45	37	34	Auyu/Boma I					
43	45	37	39	36	40	31	28	63	Jair	Auyu/Boma II			
26	28	27	27	30	28	33	30	24	21	Auyu/Karome			
16	17	15	17	15	16	19	19	25	25	11	Kombai/Aifo		
4	4	5	4	3	3	3	3	6	9	1	1	Yaqay/Dagemon	
3	2	4	2	2	2	1	2	4	7	2	0	89	Yaqay/Tagaimon Sino
1	2	2	2	1	1	1	1	3	5	0	0	68	71 Yaqay/Linggua

This part of the survey covered four main speech varieties: Auyu, Jair Auyu, Kombai, and Yaqay. Looking at the matrix above, based on percentages of lexical similarity we see that there may be as many as four different languages spoken in these villages. Following is a summary of the matrix.

5.1.1. Auyu language

In the Auyu language speaking villages, there are four dialect groupings⁹:

1. Ikisi and Yare have a high lexical similarity count of 78 percent. These are close to Kowo I and Sufio (58 percent to 64 percent).
2. Sohokanggo and Somi are very close (74 percent). These villages also have close relationships with Kowo I and Sufio. Though Kowo I and Sufio have somewhat high percentages of shared words with both Ikisi/Yare and

⁶*Wordsurv* is a computer program that is used to analyze the lexical similarity of languages.

⁷For further details, see appendices I and II.

⁸The analysis was done by Myo Sook Sohn.

⁹There are many ways of defining the term "dialect." At this point, we use the term "dialect" when the percentage of lexical similarity is above 60 percent. We recognize that it is necessary to do intelligibility testing in follow-up surveys to confirm whether the dialects we have grouped are similar, dissimilar or a different language.

Sohokanggo/Somi, the relationships among Somi, Sohokanggo, Ikisi, and Yare are low (less than 60 percent). We thus need to know how these dialects are chaining, or networking, among the six villages.

3. Hellu and Kaime have a high lexical similarity (81 percent). However, the relationships with the other dialects are very low.
4. Karome has low lexical similarities with other dialects. Geographically, it is located far from the other Auyu speaking villages.

5.1.2. Jair Auyu language

The villagers in Boma I said that they spoke Auyu language. The matrix above, however, indicates that Boma I and Boma II can be grouped together because the relationships between Boma I and the other Auyu dialects are very low (less than 50 percent). It would thus be better to consider Boma I as belonging to the Jair Auyu speech variety rather than the Auyu speech variety.

5.1.3. Kombai language

A whole 239 wordlist was taken from one Kombai speaking village, Aifo, while in Uni we only checked first fifty words (the result showed the similarities between two villages—see also section 4.1.2.5.2). The matrix above indicates that Kombai is a different language from the Auyu, Jair Auyu, and Yaqay languages. Shared words with the other languages are less than 25 percent.

5.1.4. Yaqay language

According to the matrix above, all the Yaqay villages can be grouped as one language with two dialects. Two villages, Dagemon and Tagaimon Sino, have a very close relationship to each other (89 percent). Tagaimon Sino and Linggua also have a high percentage of lexical similarity (71 percent). Corresponding to the matrix, the villagers also said that Linggua was a different dialect from Tagaimon Sino and Dagemon.

5.2. *Major and Minor Language Groupings*

Table 10. The dialect groupings are based on percentage matrixes of shared words.

Major Grouping	Dialects Included	Villages	Approx. Population
Auyu	Four dialects	1. Ikisi, Yare, Sufio, Kowo I 2. Sohokanggo, Somi, Sufio, Kowo I 3. Hellu, Kaime 4. Karome	4,500
Jair Auyu	One dialect	Boma I and II	750
Kombai	One dialect	Aifo, Uni	140
Yaqay	Two dialects	1 Tagaimon Sino, Dagemon 2 Linggua	750

6. CONCLUSIONS AND RECOMENDATIONS

6.1. *Survey Methods*

The oral questionnaires and interviews were very helpful and did not consume too much time. This made it easier for the survey team as well as the people from whom we obtained the information.

6.2. *Linguistic Situation*

Further research must be done to know if Auyu speech varieties are dialects of the same language or distinct languages. Since the Auyu speaking villages are very scattered, it might not be easy to find the border of each dialect.

6.3. *Sociolinguistic Situation*

It was evident that the people are proud of their own language. They use it in all familiar domains (home, family, friends). However, children use Indonesian a lot, to the point that some children in some villages do not know how to speak the vernacular. This is increasing since most schools do not allow the children to speak the vernacular in the school environment. In addition, most teachers are not local people and do not speak the language.

There are also positive attitudes toward the use of Indonesian. When they have contact with people from other villages and they do not speak the same language, they communicate in Indonesian.

All people we interviewed expressed a strong desire to preserve their own language. They said that they would like to participate in a literacy and translation program in their own

language. Most did not give specific numbers of how many people would like to participate. In one village (Yare), interviewed individuals said that people would like to help if there was food provided for them.

6.4. *Community Development Possibilities*

Community development projects could be helpful. The people need help in the areas of education, transportation, communication, health, and the economy.

6.5. *Translation Possibilities*

Every village showed great interest in having their language written not only to preserve their language and culture, but also to make it easier to understand information about religion and many other subjects.

In Yare, there is a local man who wrote some religious songs in the vernacular. These songs are sung by the congregation at a local church. It would be good if there were a workshop conducted for local songwriters, perhaps somewhere in that area to encourage people to start doing a program in their own language.

6.6. *Future Research*

More research needs to be done along the Mapi River. This would include information about community development needs as well as linguistic information about Jair Auyu, Kombai, Auyu, Yaqay, and any other speech varieties in the area. It is recommended that intelligibility testing be done along the Mapi River and its tributaries.

Before allocating, teams should visit as many villages as possible in the area to see which one they feel is most appropriate for the members of the team to live in.

APPENDIX 1 **Rules for Lexical Similarity Decisions**

Number of phonetic segments in the longer of the two words being considered	Exact C Similar V	Similar C Other V pairs	Dissimilar C C or V with no pair
Word Length	Category I (A)	Category II (B)	Category III (C)
Two	2	0	0
Three	2	1	0
Four	2	1	1
Five	3	1	1
Six	3	2	1
Seven	4	2	1
Eight	4	2	2
Nine	5	2	2
Ten	5	3	2
Eleven	6	3	2
Twelve	6	3	3

Phonetically Similar Consonants(Cat II)	Phonetically Similar Vowels (Cat.I)
p - b - m	i - y --i , u - u - u , y - ø - œ,
p - b - ɸ - p ^h - p ^w - p ^j - m ^p - m ^b - b ^j - m ^b j	i - i - e - ε , i - u - ə - ɐ - ɜ
v - f - ɸ - ɸ ^ɪ - β , β - b - m , p - ɸ - ɸ ^ɪ	ə - ɐ - ɜ - ɐ , ə - i - e
t - d - n - ɖ - ɖ - ɖ̃ , ɖ - ɖ̃ - t ^w - d ^j - d ^w - c - ɟ	e - ε - ə - ɜ , i - i - e - ε , i - y - i - e - ø - ɐ
t - s , d - z , d - ʃ , s - ʃ , z - ʒ , ʒ - ʒ̃	ε - æ - ɜ̃ , ɐ - ʌ - ɑ - ɒ - ɔ
ʃ - s - s ^j - s ^ɪ - ʃ - z - z ^ɪ - ʒ - ʒ̃ - ʒ̃ - ʒ̃ - ʒ̃ - ʒ̃	i - i - i -
t - ʃ̃ , d - ɖ̃ , ʃ̃ - ɖ̃ , z - ɖ̃ ,	i - u - ə - ɐ - u - u - u
c - ɟ - k - g - ʔ ^k - g - k ^h - k ^w - g ^w - q - q ^w - ʔ ^g - ʔ ^g - G - G ^w - ɟ̃ , ɟ̃ ^w - g - b	u - u - u - o - u - ʌ - ɔ
ɟ - ɟ̃ - x - ɣ - ɣ̃ - ɣ̃ - ɣ̃ - ɣ̃ - ɣ̃ - ɣ̃ - ɣ̃	ɔ - ʌ - ɑ - ɒ - ɔ
c - ɟ̃ , ɟ̃ - ɟ̃ , k - x , g - ɣ , q - ɣ̃ , G - ɣ̃	
m - n - ɱ - ɱ - ɱ - ɱ - m ^j - m ^w - n ^ɪ - n ^w - N	
r - r - l - l - ɾ - ɾ - ɾ - ɾ - ɾ - ɾ	
ʔ - h - Ø	
w - ɥ - j , j - j	

APPENDIX II

Criteria of Rules for Lexical Similarity Decisions of Irian Jaya (Papuan) Wordlists

Wordlists the survey teams have elicited in the South Coast indicate that Irian languages in the South Coast are different from Austronesian languages. So far, we have discovered some features of Papuan languages through eliciting sentences informally. What we have found is that the Papuan languages on the South Coast have more complicated affixes on verbs and nouns than Austronesian languages. Therefore, the survey team decided to modify the criteria from the ones given by Blair in his book, *Survey on a Shoestring*. However, we tried to follow his principles.

Here are the modified rules:

1. Initial, medial, and final glottal stops are sometimes considered as C and sometimes as null. Lengthened vowels are sometimes considered as VV, but sometimes as V. Since it is not known if the glottal stop will be interpreted as C and lengthened vowel as VV before work is done on the interpretation of syllables in each language, the survey team decided to interpret glottal stop as C or null and lengthened vowels as V or VV.

2. Phonetically similar segments, which occur consistently in the same position in three or more word pairs, we grouped them together. For example, in CVC and CV syllables of some languages, if the initial CV is the same, the survey team ignored the final C and grouped them together, as in:

No. 14. [ju^hβ] and [jʊ] ‘he’ (examples from Tsaukambo and Korowai language)

No. 42. [n e] and [n ε r] ‘I’ (examples from Nakai and Tangko language)

Auyu and Yaqay have the same features in the nasalized and non-nasalized vowels.

[õ] and [ã] are considered the same as nasalized vowels and velar nasals like [õŋ], [ãŋ]:

No. 21. [gõ] and [gõŋ] ‘blood’

No. 189. [nẽ'fẽ] and [nã'fãŋ] ‘know’

3. Affixes are ignored. However, affixes (prefixes, infixes, or suffixes) in Papuan languages are difficult to identify, especially in verbs, as Papuan languages sometimes have the subject, object, tense, or aspect embedded in the verb. For example, when the words below are grouped together, we begin to see what may be interpreted as roots as follows:

No. 187. ['eta] ‘see’

[etaɣo]

[etoɣo]

['i'taɣoŋ]

[i'toɣoj] (from Auyu)

4. Affricates (ts , dʒ , dʒ) and modifications ($^{\text{m}}\text{b}$, d^{j}) can be considered as one segment or two segments, depending on the comparison being made.
5. Diphthongs can be considered two segments or one segment, depending on the comparison being made.
6. In phrases, the most similar words are compared. This generally occurs with nouns, numbers, prepositional adverbs, and interrogative pronouns, as follows:

No. 174. [$\text{j}\text{ə}\text{m}\text{ə}$] ‘bad’
 [$\text{j}\text{ə}\text{m}\text{ə}$]
 [$\text{j}\text{ə}^{\text{h}}\text{m}\text{ə}$ $\text{n}\text{ə}\text{p}^{\text{h}}$]
 [$\text{j}\text{ə}\text{m}\text{ə}$ $\text{b}\text{ə}\text{k}^{\text{h}}$] (from Yaqay)

In addition, words that look like compounds, especially nouns, adjectives, adverbs, and pronouns, are grouped together, even if lexically they do not match exactly.

No. 139. [fu to] ‘below’
 [fu to]
 [fu]
 [fu] (from Auyu)

7. The following segments are considered exact matches: [$\text{u} = \text{w}$] and [$\text{i} = \text{j}$]
8. Consistent sound changes, which occur in some languages, are considered exact matches as follows:

In the Auyu language, [f] and [f], [j] and [dʒ] are the same.

No. 233. [fi] and [fi] ‘name’ (from Auyu)

In Yaqay, [k^{h}] and [ξ] are the same.

No. 142. [kox] and [$\text{k}\text{o}\text{k}^{\text{h}}$] ‘cold’ (from Yaqay)

9. Unreleased consonants, accents and nasalized vowels are ignored.

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