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## Ifalik Atoll

### Household interviews

Conducted by Danko Taboroši,  
Dominic Tachielig (08/20/15),  
and Callistus Hasefalgar (08/21/15)

Compounds where interviews were conducted were selected arbitrarily, with focus on compounds with more residents. Three compounds were chosen in each of Ifalik's 4 villages. The interviews were conducted in Ifalik dialect of Woleaian language and translated by Dominic Tachielig and Callistus Hasefalgar, or in English when the informant had sufficient knowledge of it.

The interviews consisted of 15 fixed questions which everyone was asked in the same order. These are numbered 1 through 15. Additional followup questions may have been asked on case by case bases, and they are given in brackets where relevant. The length of interviews ranged from 20 minutes to 40 minutes. First letter in the code indicated stands for each of the four villages on Ifalik. The second letter in the code, A, B, or C is used to identify various compounds' residents' answers to the questions below. These letters replace the actual compound numbers used elsewhere in the report in order to ensure anonymity of the respondents.

### Interview data:

Code	Compound	Informant(s)	Date	Audio file	Language	Length
RA	/name removed/	female	08/20/15	LS100240-41	Woleaian	25'
RB	/name removed/	youths in a group	08/20/15	LS100239	Woleaian	15'
RC	/name removed/	male, senior citizen	08/20/15	LS100243	English	13'
FA	/name removed/	female	08/20/15	LS100237	Woleaian	21'
FB	/name removed/	male	08/20/15	LS100238	English	24'
FC	/name removed/	male	08/20/15	paper notes	English	31'
YA	/name removed/	female and male	08/21/15	LS100244	Woleaian	23'
YB	/name removed/	female and male	08/21/15	LS100245	Woleaian	26'
YC	/name removed/	female	08/21/15	LS100249	Woleaian	18'
IA	/name removed/	male	08/21/15	LS100246	English	11'
IB	/name removed/	male	08/21/15	LS100248	English	18'
IC	/name removed/	male	08/21/15	LS100247	English	12'

## Interview content:

### 1. Where do you get your drinking water?

RA: From the water tank.

RB: We get it from our tank.

RC: From the rainwater catchment tanks.

FA: Catchments. **[Do you drink straight from the catchment or do you treat the water somehow?]** No boiling or treating, just drink.

FB: Just from the rain. Long time ago we were drinking from the wells.

FC: Tanks.

YA: From the black water tank.

YB: Water tank.

YC: From the water tank.

IA: We get from the rain.

IB: We take from the rain.

IC: From the rain.

### 2. Do you drink coconut water? How many coconuts per day per adult/child?

RA: Yes, that is one of our main sources of drink on the island. We drink 2-3 per day. **[What about little kids?]** Just 1.

RB: We drink about 3 coconuts per day. **[What about kids?]** They drink 1-1.5.

RC: We do, but not every day. **[Even the kids?]** Whenever we have diarrhea, at that time we drink coconuts every day. **[How often does that happen?]** Sometimes. **[When it happens, several people get it at the same time?]** 2-3 people in the family get it.

FA: About 2 or 3 for each adult person. Children are small, they drink less.

FB: Maybe 3 or 4, depends on how each adult feels.

FC: We drink about 1 coconut per person per day. **[How many coconuts do you have on an average tree?]** More than 10-20 coconuts per tree.

YA: Yes. Normally a person would drink at least 1 coconut in a day.

YB: Yes. About 4-5 every person every day.

YC: Yes. Every day. 1 or 2 a day. **[And the kids?]** 3 or 4.

IA: Yeah. I used to drink only if I have coconuts, maybe 4 or 5. This is normal for everyone in the family. Sometimes I don't want to drink. Kids really like to drink coconuts, maybe 5 or 6 per day.

IB: Yeah. Not really every day. We drink mostly when we don't have water. We used to reserve coconuts for the chiefs' purposes. **[What about the kids?]** When children ask for a coconut, we get it for them.

IC: Oh, yes. Adults 2-3 per person per day. Children more.

### 3. Where do you get water for cooking taro and breadfruit?

RA: For cleaning taro we get from tank or well. For cooking we get from the tank, or the well when we are very short.

RB: From the well.

RC: From the well.

FA: We get it from the well.

FB: We don't use the rain, we keep it safe for drinking. We use the well.

FC: Both tank and well. Mostly well, but need to use the tank during low tide.

YA: From the well.

YB: For food that takes a long time to cook, such as taro and breadfruit, we use water from the well. For food that is cooked with coconut milk, we use rainwater.

YC: From water well. **[And for washing foods?]** Also. For taro we use water from well and from tank, but when rainwater is limited, we use only from well. **[What if you want to cook and it's low tide, can you still get water from the well?]** We can get water from the well any time. It never runs out.

IA: From the well.

IB: Sometimes we get from the well, and also from tanks if there is enough rain.

**[Does your well still have water during low tide?]** Sometimes we try to collect as much as we can during high tide. **[So if you want to wash dishes or get some water during low tide, it's easier to get it from the rainwater catchment tank?]** Yes.

IC: The well and concrete rainwater tank. If running low on rainwater, only the well.

#### 4. Where do you get your water for cooking things like rice, soup, ramen, etc.

RA: From the tank.

RB: From the tank.

RC: From the tank.

FA: We get it from the tank.

FB: For this we use the rain.

FC: From the tank.

YA: For rice and soup we use water from the tank.

YB: Rainwater.

YC: Rainwater.

IA: Sometimes we get from the tanks, sometimes from the well.

IB: That is when we use rainwater. But for taro, breadfruit, and local foods we use the well.

IC: Rainwater.

#### 5. What about dishes, laundry, shower?

RA: From the well. But can also use rainwater if we happen to have lots of buckets or barrels filled with water.

RB: From the well. **[Do people ever bathe in the ocean instead of showering?]** Yes. We bathe in the ocean and can rinse off with water from the well near the beach.  
RC: For dishes, sometimes from the tank and sometimes from the well. For laundry and shower, from the well.

FA: Everything from the well.  
FB: We use the well.  
FC: Well.

YA: Well.  
YB: Water from well. But sometimes when the kids are tired to bring from the well, we use rainwater for dishes and laundry.  
YC: From water well.

IA: From the well.  
IB: We use the well.  
IC: The well.

## 6. What other things do you use water for?

RA: Pigs, we give them water from the well. **[Do you ever water the plants you have in your garden?]** Oh, yes. If there is not enough rain we must give them water from well. This is not for trees, just for tobacco, pumpkins, small plants.

RB: Pigs. Water comes from the wells.  
RC: We have pigs and we use water from the well for them.

FA: That's it.  
FB: That's all. Pigs drink water we give them from the well.  
FC: Water for pigs is from the well.

YA: For pigs. From the wells. **[Do you have to water your plants sometimes?]** Yes, but rarely. We get water for that from the well.  
YB: For pigs. We get from the well. **[Do you ever need to water the plants?]** Sometimes, but not very often.  
YC: We get water for pigs from the well. **[Do you need to water the plants if it is very hot and dry?]** Only for plants that we newly planted.

IA: For the pigs, also from the well.  
IB: Sometimes we kill pigs and we use water to clean this.  
IC: Pigs, water from the well.

## 7. Any idea how much water you use per person per day?

*(Note: This question was generally rephrased in terms of the number of 1-gallon Clorox bottles filled with water a family or person would use in a day).*

RA: Maybe 10 gallons is enough for 1 day for our family (5 people) if we really take care.

**[So normal use would require more?]** Yes.

RB: We need more than 3 gallons per person per day. Just for shower we need more than 1 gallon.

RC: What I know is that for us in this house, 4 adults and 1 child, we use 2 gallons per day for drinking water.

FA: Maybe we don't finish a Clorox bottle per person in 1 day. **[That includes the dishes, and everything?]** Yes, everything.

FB: Less than 1 Clorox bottle per person for drinking. Maybe 5 Clorox bottles per person to include all uses.

FC: Guessing about 2 gallons per person per day.

YA: We need about 3 buckets to make dinner. That includes cooking and washing food.  
*(Note from Danko: did not see this bucket, they said that it holds about 3 gallons)*

YB: For shower, we use about 3 buoys-worth for a single shower. We shower 2-3 times per day, so we need 6-9 of those per person per day for showers.

*(Note from Danko: I calculated the volume of the type of buoy typically used for getting water from the wells to be about 0.5 gallons)*

YC: Average, 1 person will finish 1 Clorox bottle *[1 gallon]* every day.

IA: I think, maybe, 5 gallons for drinking and shower. Per person. Per day.  
**[How much do you drink?]** About half a gallon.

IB: I guess, maybe, from the rainwater, we use 5-6 gallons for drinks and cooking for the whole family. **[How many people are in this family?]** 8 kids, 11 of us altogether. I used to fill a gallon a day and put it somewhere, whenever I need it, but most of the time when I come the bottle is empty, so I have to fill it up again. That is my calculation, about 5-6 times per day.

IC: For sure we do not concentrate on how much water does each individual use. For drinking, 1 gallon is enough for 1 person for 1 day, for sure. For shower, also 1 gallon is enough for 1 adult person.

## 8. What type of use requires the most water?

RA: Dishwashing and drinking. **[That takes more than shower?]** Yes.

RB: *(question not asked)*

RC: *(question not asked)*

FA: *(not asked)*

FB: Shower. **[Do you sometimes shower in the ocean?]** Yes. Some people can shower in the ocean and do not need to rinse. Some people need to rinse afterward.

FC: Cooking and drinking require more water than other uses.

YA: *(no answer)*

YB: Maybe shower. Generally, we don't cook every day. If we cook taro or breadfruit, we can use it for 2-3 days. But shower we use every day.

YC: Cooking and showers.

IA: I think the showers.

- IB: I think cooking and showering. Both of those are from the wells, but we can use rainwater for shower and cooking if the tank is full.
- IC: Cooking and cleaning food. Cooking taro involved cleaning.

### 9. Did you ever run out of drinking water? What did you do?

- RA: Yes. We went to the neighbors and asked for water there.
- RB: Yes. We go to other compounds to borrow.
- RC: Yes, yes. We drink water from the well, but we boil it first. **[You don't go to borrow from the neighbors or relatives?]** I don't know about the others, I am talking about us, we are afraid to go ask others. If I ask water from you, sometimes you say "yes" and sometimes you say "no." We are afraid if you say "no."
- FA: Yes, plenty of times. We go to another compound and borrow, get water from them.
- FB: Yes. We go to another place to borrow.
- FC: Yes. We borrow water, we always do that.
- YA: Yes, we have been out of drinking water. We asked other families to borrow from them.
- YB: Yes. When we are out of water we go to the neighbors and ask for water.
- YC: Yes. We went to neighbors and asked for water.
- IA: Yes, sometimes when we don't have rain, we run out.
- IB: Yes, it happens when there is no rain for 1 or 2 months.
- IC: Yes, 2 or 3 months ago we were almost out of water. We went to the neighbors to borrow.

### 10. What happens if the neighbors also run out?

- RA: We have our own well, we get water from it, boil and drink. But we are concerned about salt in the water and in the taro patch? **[Do you think that the water in your well or taro patch now has more salty water than before?]** We worry because we heard that the sea level is rising. **[Are you seeing anything on your island that makes you worry?]** Oh, yes. Before we used to have very healthy coconuts in the taro patch, they used to produce a lot of nuts. But since the 1980s they do not produce nuts, they have very few leaves, the leaves are weak and there are just 4-5 nuts per tree. But long time ago, kids could climb up those coconuts and sleep up there, the leaves were so big and strong.
- RB: We go to the reserve tank at the school.
- RC: *(question not asked)*
- FA: We would go to another compound that we know still has water. **[Did it ever happen that everyone ran out and you could not get water from any neighbors?]** No, we didn't have that.
- FB: If there is no other way, we drink coconuts.
- FC: We drink coconuts.
- YA: We get water from the well and boil it before drinking.
- YB: We go to another neighbor. **[Did it ever happen that everyone else ran out as well?]** We have not experienced that.

YC: If they are out, we go to another family.

IA: We get water from the well and we boil it.

IB: We ask around and get it from people who still have. **[Did it ever happen that everyone ran out and you could not get water from any neighbors?]**  
If the neighbors don't have it either, we use coconuts.

Before we used from the well, but no more.

IC: We use from the well. We now know we have to boil before drinking.

## 11. How and when do you know that your water supply is getting low?

RA: If it hasn't rained for a while we know the water in the tank is low. We can check by knocking on the tank to see how much is inside. We can tell we have very little when the water starts flowing slowly from the faucet.

RB: We knock on the tank to check the water level.

RC: We send a child to look inside the rainwater catchment tank.

FA: When the water in our tank gets low, that's the time we try to conserve water because we know we are running out.

FB: We look inside the tank.

FC: Climb on top and look inside the tank.

YA: We look inside or knock on the side.

YB: We open the cap and look inside.

YC: Sometimes we check. We look inside or knock on the side.

IA: Sometimes we knock on the tank, sometimes we open and look.

IB: When we collect water, we can tell the water is low by the way it is dripping. Since we've had plastic tank, it's been very good because we can knock on the side and know how much water is there.

IC: We can figure out how much water is in the tank. When it goes below half we know we don't have enough.

## 12. What do you do to conserve water when you notice the supply is getting lower?

RA: We lock the tap. We set the time for everybody to come and pick up their water. **[Do they start using more water from the wells for cooking in order to save the tank water for drinking?]** No, we don't use the well water for cooking, except for taro.

RB: If the level gets to a small amount, we do not let kids get water from the tank.

**[How do they stop the kids?]** We tell them, and we have a lock to put on the tap.

RC: When the level is about half we say to everyone to take care.

**[What do you change in the way you use water?]** We start to drink coconuts.

FA: We start to worry. **[Even when the tank is full, you use the well for dishwashing and things like that?]** Yes, only the well. **[So, basically, when you see that the water level is getting low, you cannot change anything, you are already using the minimum just for drinking, you cannot drink less. You can only hope that the rain**

- would come.]** Yes, we only rely on rain.
- FB: When the tank level is about half, we lock it and set the time for people to come and get water.
- FC: If the tank gets to about half, we shut off valve, and begin to drink more coconuts and borrow water until rain fills tank up.
- YA: We are concerned when the level reaches half. We put a lock on the tap and set time for all people in our family to come and get the water they need for the day. **[The people who come to get the water at the set time bring their own bottles, fill them up and carry them home?]** Yes.
- YB: When the water level is down to about 0.5 inch above the faucet, we notice that the water is not leaking well. We begin to worry. **[But then it is already too late, no?]** Yes. **[So you don't catch the problem when the level in the tank is about half or little less than half?]** We only see when it's too late. We cannot prevent it. We just stop kids from using the water from the tank. Actually, we are not really using our tank anymore because we see little black things like worms inside. **[You have them right now and are not drinking water from your tank?]** Yes. **[So where do you get water now?]** We go to the neighbors. **[Do you need to clean your tank soon?]** Yes. **[You will dump all the water to clean?]** Yes.
- YC: We worry when the water is less than half. We lock the tap.
- IA: When we notice that the tank is at half level, we drink a little water, sometimes we get from the well and boil it. **[So even when you still have half the tank you sometimes drink boiled water from the well?]** Yes. **[You don't borrow from the neighbors?]** No. **[Do you lock the tank?]** No, we don't have a lock. **[Water in the well tastes good when you boil it?]** It is normal for us. But some outsiders, they say the taste is different from the rain.
- IB: We use the water. When it is gone we go and ask the neighbors. That happened about 3 months ago. The faucet on my tank had a loose screw and the water was leaking. I tried to tighten it, but the water kept going. We had to change the faucet. **[When you don't have enough water, can you do something to preserve it?]** There are a lot of us in the family, so I encourage them to use less water. But kids open the faucet and let it get wasted. Sometimes I tighten the faucet so the kids cannot open it.
- IC: We lock the tap. This helps because we tell the people from our compound and different houses to come at specific time, 5pm to pick up their water.

### 13. If it stopped raining from now on, how long would your full supply last?

- RA: Maybe 2-3 weeks.
- RB: A month or so. From half to empty it is about 2 weeks.
- RC: It takes about one month to get to half. **[If rain still does not fall, how long would it take for it to become empty?]** The bad thing is that we do not have a lock to put on the tap. I wish we had that kind. Because this way at the night time somebody comes and steals our water. That is our need.
- FA: This one is the only tank that supplies the whole compound. Another one that belongs to us is on that end (*pointing to another part of island*) and we just brought it in last week. So I cannot tell. **[If you only had this one here, how long would a full one last if**

**there was no rain for a while?]** Maybe we can make it for 2, 3 weeks.

FB: Not sure, because people use water in different ways. Maybe someone uses it to take shower or dishes. **[What if you had half the tank, you put the lock on the tank, and set the time for people to come and get the water they need, how long would that half of the tank last when you are taking care?]** Maybe only 2 weeks.

FC: Less than 1 month.

YA: It would be at half in about 2.5 weeks. **[And if the rain still doesn't fall, how long would the second half last after you put the lock on the tap?]** 3-4 weeks.

YB: *(no answer)*

YC: Almost 1 month.

IA: About 1 month to become half. **[And how much more time before it is empty?]** Another 1 month. Even if we are saving water, other people come and use.

IB: It takes about 2-3 weeks to fill up the tank. **[How much time without rain can your supply last?]** It would last about 1 month, I am just guessing.

IC: The tank would come to half in about half a month of normal use. Our big black tank can last 2 months of careful use.

#### **14. Has anyone in your household been sick due to problems with water?**

RA: Yes. Sometimes kids feel sick and get diarrhea from the water. Sometimes health assistant tells us to boil water before we give it to the kids. **[In general, do you boil water before you drink?]** No.

RB: No.

RC: Just diarrhea.

FA: No.

FB: We were told by the health assistant to boil water during drought time. **[Do you do it?]** Yes, for a short time after they tell us we need to do it. Normally, we just drink the water, and we don't know from what we get sick. **[What kind of sickness to you get?]** Diarrhea.

FC: Diarrhoea sometime. When that happens, we boil water and drink coconuts. Normally we don't boil or use bleach, etc.

YA: No. It may be, but we don't know if it is from the water.

YB: No.

YC: No.

IA: No.

IB: Not that I know of.

IC: I don't think so. Small kids get diarrhea, maybe from flu going around.

#### **15. How and how often do you clean your rainwater storage tanks and gutters?**

RA: We clean the tank when it is really empty. We also clean when we notice some kind of mushroom coming out from the faucet. **[How often do you clean it?]**

- Maybe 2-3 times a year. **[What about the gutters?]** We also clean the gutters.
- RB: When it is empty. **[Do you clean the gutters?]** Yes.
- RC: We clean it every 2 months. We tip it over and scrub it.
- FA: When the tank is nearly empty, that's the time we clean it. It depends on the weather.
- FB: We clean it when we know that it is empty. Or when there is water inside, but it is dirty.
- FC: Once every 4 months or so, 2-3 times/year. We do it when we notice dirt coming from valve or when water has a different taste.
- YA: When the water is dirty, we empty the tank, roll it down and clean it. **[How often do you clean the tank in one year?]** About every 2 months. Whenever we see green stuff come from the tap.
- YB: A few times a year, whenever we see that something is living inside the water.
- YC: About every 2 months. **[How do you choose the time?]** We clean it when it is empty. **[What happens if the tank is full but you notice a strange taste?]** We drain and clean it. **[But then you would not have any water.]** We have 2 tanks at our house, so it is OK.
- IA: Myself, I clean the tank about 2 times per year. Sometimes I take one of my kids and put inside to clean.
- IB: When I know the tank is empty, that is when I clean it. But if it is full, I try to reserve the water for later use. **[Does it happen that the tank is full, but the taste is weird?]** Yes, that happens, but if I empty it and clean it, then no more water. I have only 1 tank. So we do nothing, we just drink, drink. Clean it when it is very low or empty. I was comparing these two types of water, from the well and from the rain, this water from the rain is more clean. But I know about safety, so rather than drinking from contaminated tank, I drink from the well. When I was young I was always drinking from the well.
- IC: We clean it when it is really low. **[Do you ever clean it when it is full, if you notice the taste is different?]** Yes, we clean it, we dump the water. **[How often do you clean it?]** About 2 or 3 times/year.

## 16. What are the water related-problems you face?

- RA: We do not have enough water.
- RB: We do not have enough roofs and gutters.
- RC: Water is very important for us. We can die when there is no more water.
- FA: The whole compound relies on this tank. If each household had its own tank, I think we won't have any problems. Only a few people in a house, Now more than 20 people on 1 tank. Each household would know how to take care of own water.
- FB: Some people have tanks but do not have roofs and gutters.
- FC: Running out of water.
- YA: My biggest concern is that water may run out and we do not get enough rain.
- YB: Water is life. Without water we die.
- YC: No problems.
- IA: When we don't have water, we're running around looking for water.
- IB: The quantity of water.

IC: Not enough water. This tank is not enough, we need some more. Plus the tin roof, as you can see, many compounds don't have tin roofs and gutters, so they give their tanks to other compounds. There are some tanks sitting around because they don't have roofs and gutters at their place.

## 17. What can be improved in your water situation? What do you need?

RA: We need more tanks and roofs and gutters. Sometimes we have tanks but we do not have enough roofs and gutters. So we move our tank to another house where tin roof can catch the rain.

RB: We need more tanks and roofs. **[We have seen many kinds of tanks: plastic, concrete, round, rectangular. Which kind of tank do you think is the best?]** The tall black plastic one, with 4,000 gallons. It is easy to clean and stores a lot of water. **[It doesn't get damaged during typhoons?]** No, it doesn't break, even if something falls on it. The concrete tanks are bad, they break and leak.

RC: We need a lock for our tap on the rainwater tank. We also need another tank. Sometimes we have a drought and do not have enough water in the one tank.

FA: For this only 1 tank for the whole compound... In my household we really take care of this one, not to waste the water, but the other families, they don't care, they can use this water for the kids, for shower. Maybe that's one problem. We should have 1 tank for each household.

FB: We need more tin roof material.

FC: Need more gutters and tanks. Roofs also.

YA: The government should give us 2 tanks for each household.

YB: We ask government to give us more tanks. **[What about this huge tank next to your house? It was a huge one, but not used anymore. What happened to it?]** It was not too long after it was installed that rats and lizards went inside for swimming.

**[It's open at the top?]** It was covered with a piece of wood, so rats got inside.

**[So it's useless?]** Yes. **[You say you want the government to give you more tanks. What if they give you more like this useless one? Which kinds do you need?]**

I don't know what type is good. We use whatever they provide us. **[We have seen many kinds here on island, round, rectangular, plastic, concrete. Is there one type that everyone on island thinks is convenient, good, safe, easy to cover, easy to clean?]** The black, plastic bottle-shaped one is better than any other. **[What about that bucket-shaped one over there?]** When it is full it loses the shape and the cover falls inside.

**[What about concrete tanks?]** The black plastic bottle-shaped tanks are easier to clean.

YC: *(question not asked)*

IA: We have only 2 tanks, but one is very small. We need 2 more.

IB: We don't have enough tanks to collect a lot of water. Maybe that is the problem we have to face and try to solve in the future.

IC: We need to keep asking and begging the government to supply us with tanks, roofs, and gutters. **[Which kind are the best?]** Plastic tanks are the best, and plastic gutters are much better, they last longer.