



BALI WATER PROJECT

RICHARD FOSS

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Foreword

Joseph Conrad once famously identified his goal as a writer as “to make you hear, to make you feel — it is, before all, to make you see.”

If you come to Bali as a tourist you will be instantly attracted to the people, their culture, and their religion. What you will not see are Bali’s rural poor because they are not a part of Bali’s tourism industry. For they are hidden away, invisible, so to speak. They are hidden in the small villages, hidden in the mountains, hidden in small subsistence farms and hidden in the fishing villages. They are generally quite shy and have little or no education. They are a happy, industrious, and hardworking people. But they are the same Balinese as are seen by the tourists. And I want to introduce some of them to you. Some of the mountain people, that is, and why we are doing these water projects. The main focus of this book is to demonstrate why we are doing this. Sure, we will talk about what we are doing and how we are doing it.

So this book is basically about drinking water; water only for

human consumption. It does not discuss water for bathing, agriculture, or animals. It touches on our life in Bali for that is part of our story. It speaks only marginally of health care, sanitation, education, and economic development for these rural people.

I must apologize if there are factual errors in this narrative. The opinions are mine alone. But these are the facts as I understood the facts at the time.

Ardeen Richard Foss

Ubud, Bali, Indonesia
August 2016

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Why don't we do something?

“The bomb”. We were talking about the crippling lack of tourists in all of Bali, especially the northeast coast of Bali. “The bomb did it.” So said the man in ragged clothes who had just asked me if I wanted to walk up the mountain and see the sunrise. It was late in the year of 2005. The second bomb in Jimbaran in October 2005 had stopped the tourists for a second time since the big bomb blast in Kuta in October 2002 which killed more than 200 people. The bomb had indeed, once again ruined the tourism industry. Some jihadist nuts from the terrorist group Jemah Islamiah were responsible. Why did they bomb Bali? I think that they did so because of three reasons. Lots of beer drinking goes on among the Aussie revelers. Bali is the ‘cash cow’ of Indonesia. Finally, as the world’s largest Muslim nation, they had a woman for president. We think only of the lives



**AMED AREA. WHAT THE TOURIST SEES,
COLORFUL "JUKUNG" OF THE FISHING FLEET.**

killed and of those that were injured during the bomb blasts. We seldom think of the consequences of the terrorist act. There are social, economic, and political aspects to these acts. Sometimes the consequences are profound, sometimes they are subtle.

We were the only guests in the hotel on the beautiful beach in the area that the tourists call Amed. Shucks, we were the only guests in the several hotels along this beach. The tourist industry had just about recovered when the second series of terrorist bombs had killed a few people in far-away Jimbaran. So the owners of the hotels, restaurants, and dive centers in this area had furloughed half of their staffs from their jobs because of a lack of tourists.

My first thought of this man's offer to climb the mountain seemed like a rather bad idea. I could see the sun rise right

here from the beach if I wanted to get up at 0530 hours in the morning. That is oh-dark-thirty. But then I knew that he was one of the people who had lost his job. His family had nothing to eat. And he was hungry. He needed money. He was one of the onetime subsistence farmers who had taken a job at one of the hotels. Then they were laid off because the bomb caused a lack of tourists. One cannot be a subsistence farmer one day, a hotel worker the next, lose your job, and then go back to subsistence farming. It doesn't work that way. The family goes hungry. So I decided to go. I decided to go trekking with him up in the high dry hills.

He came down the mountain to pick me up at 0400 the next morning. Bali lies about eight degrees south of the equator. The sun rises and sets with a particular regularity all year long. It rises about 0630 hours and sets about the same time in the



IT ALL STARTED WITH THIS GUY.

evening. We walked up (or more accurately climbed up) for more than an hour. We rested at his house and were there joined by his little girl of about four or five years of age. She joined us for the climb. I may have been older than her grandfather but I resolved to stick it out for the next hour or so. After enough huffing and puffing we stopped and we did see a wonderful sunrise. The sun was as big as I have ever seen. Red-orange and round as it oozed from the sea. What a magnificent sight. What a spectacular view of the ocean and of the great mountain. The man's name? I never knew or perhaps forgot to ask his name.

It was very dry in the high hills in this north east corner of Bali. It was the end of the eight or nine month dry season. The steep terraced slopes were plowed but empty. The corn crop was already harvested and it being the dry season nothing else seemed to grow. We spent the day hiking around the mountain witnessing some men who risked their lives to climb the tall Lontar palms to gather the flower nectar or sap from which they make *tuak* or palm wine. They try to grow corn, pumpkins, and peanuts. But here their cash crop is palm wine. The trees are 30 to 50 feet high and they must climb to the top twice each day to harvest the fluid they collect from the very top. The trees are widely spaced with no particular pattern. The fluid they collect from the large bud at the top ferments quickly into a palm wine they call *tuak*. The juice comes from the tree as a clear liquid which is semi-sweet and quite refreshing. It becomes a bit cloudy when it ferments into a mildly alcoholic wine. Much of it is then distilled in crude stills into a stronger drink called *arak*. This is the local whiskey or moonshine. We are told that it is quite potent. This is sold at the cockfights by the

shot glass. From our experience it takes very little alcohol to get a Balinese man quite drunk. One beer is their normal limit and they have only a minor problem with alcoholism. I don't know the potency of *arak* but am told it is the best in Bali. Climbing the palm trees looks to be a most hazardous occupation. They cut small steps into either side of the tree trunk. These are about 3 feet apart. The "notch" would be a marginal hand or foot hold for an experienced rock climber. And these men were in their bare feet.

I think that all visitors who come to Bali are amateur anthropologists at heart. So I took in all I could see and experience. This included the women carrying water from the coastal wells. A one way trip would take them from 2 to 4 hours. This they did every day to bring drinking water to their family compounds of two bamboo plaited walls and grass roofed shacks. One room is for cooking and storing, the other is for the entire family to sleep.



THE HOUSES ON TOP OF THE HILLS.

A family usually consisted of a mother, father, from five to nine children, a grandmother, and usually a stray cousin or two. There are 15,000, or so, people living in the high, dry hills near Amed. The government does not count individuals. They count only families. The people seemed to be rather shy, pleasant, and hospitable. They are industrious and hard-working but are rather under employed. To a person they are subsistence farmers. Their main crop is corn. Their main diet is corn. No rice is grown here because of a lack of water. This diet is supplemented by some sweet potatoes, cassava, peanuts and a few pumpkins. These supplements are available only as they are harvested however. For the remainder of the season they live on corn. Either boiled or popped. The popped corn is surprisingly delicious but I can't imagine living on popcorn as a daily regimen.



THEIR MAIN DIET IS OF CORN.

Late in the afternoon we stopped at his house. One cannot visit a Balinese house without having something to drink and something to eat. Even if the family has little or nothing. So we had some coffee and peanuts. As I was drinking the coffee, the thought came to me that someone had to carry the water all the way from the coast just to make this drink. At the same time I knew that Danielle was in the hotel swimming pool. It was an odd juxtaposition. These people would do anything for a pool full of drinking water.

Back at the hotel, I told the details of my day to the hotel gardener. His name is Ketut Suadarna but everyone calls him Ping. He told me that a tourist had given him that nick-name when she observed him taking care of business, which he does rather promptly. Pinging around. Actually I was complaining about the problem and I asked him what I thought was a rhetorical question, “Why doesn’t someone do something about their water problem?” He looked at me and very uncharacteristic of the Balinese said, “Why don’t we do something about the problem?” This is the story of not about what was done for the Balinese mountain people but actually about what the Balinese mountain people did for themselves – and for us.

I first came to Bali in the winter of 1992/1993. It was at the urging of my friend, Henk Solomon. Henk was a waste water project manager for a large international construction firm. He had come to Colorado some three years previously for health problems. While he was in the hospital in Denver he had suffered a heart attack and then he had a bad stroke. It had taken him the better part of three years to recover. I used to call him the Ed

Norton of Indonesia. That being a reference to the sewer worker in the Jackie Gleason sit-com from the Honeymooners. He did not appreciate and never liked for me to call him that.

His health problems were exacerbated when he was working in Cairo, Egypt. The company he worked for had a contract to fix the Cairo sewer system which was built by the Romans, screwed up by the Russians and soon to be fixed by the Americans. He was standing in waders in the sewer when someone called out to him, "Watch out!" But the dead carcass of a donkey hit and tumbled him head over heels down through the muck. He had significant health problems for the rest of his young life. He died of a variety of maladies at the age of 53 in 1998.

He was lonesome for his adopted family in Bali where he had lived for 21 years. One day he came over to the house in Colorado and said, "Get your checkbook. I have found round-the-world airplane tickets for \$650. Any airline, any time. Come with me and I will show you Bali." We came to Bali just after Christmas of 1992. At that time I had lived in and worked in Pacific Asia for a little over nine years but had never been to Bali or to Indonesia for that matter. We stayed in a small village of Sanding about half-way up the mountain range. It lies between Ubud and Tampaksiring, on the slopes of the mountains. The tallest mountain is over 10,000 feet high. It is cool in the foothills at this location.

The family compound was rather typical of all the Balinese dwellings. There were 23 people in this family compound. Typical in the sense that the family shrine area was in the

northeast corner. The sleeping quarters were all in the north, with all of the bamboo sleeping platforms situated so that one could sleep with his head towards the great mountain. The kitchen, pig sty, and the family garbage dump was in the south. At that time there was no running water and no electricity in the entire village, much less in the *kampung* or family compound. We bathed in the river with the rest of the local people. The nearest phone was at the ostentatious Presidential vacation palace in Tampaksiring which was in the next large town to the north of us. It was built by the first president of Indonesia, Soekarno. Of course we were not allowed to use this phone. We had to drive about 45 minutes south to the big city of Gianyar to use an antiquated and expensive pay phone.

Our entertainment in the evenings was chatting with friends, local dance and music, and figuring out the star constellations at night. The stars were very bright without light pollution from electric lights. I once heard Henk speaking to a local chap and he was explaining that the Southern Cross looked the way it did because we were looking at the back side of the Big Dipper. And that was from a college educated water engineer! But one cannot come to Bali and avoid having the thoughts of an amateur anthropologist. Part of figuring out the family lifestyle was identifying which baby belonged to which mother. My scheme was to identify them when they were breast fed. Wrong again. It did not work. A Balinese baby never seems to cry unless hungry or hurt. Women are always available to solve both problems. Since babies are not allowed to touch the ground for a number of months, they are carried everywhere. This idea of a closeness to humans stays with the Balinese all of

their lives. The Balinese are an interesting people. When three or four Americans enter the elevator they will each occupy the corners. If three or four Balinese enter an elevator, they will all be together in one corner or another. I do not know if this is actually true or not because they generally do not have elevators in Bali. That is because the buildings are limited in height and the height is limited to that of a coconut tree. Almost all of the buildings here are two or three stories at most. This of course excludes the Bali Beach Hotel in Sanur which was built by the first president and done with Russian money. It is an ugly building and I think that is why they passed the law.

Our first trip to Bali was during the reign of the second president and dictator, Suharto. We were not allowed to gather in groups more than five, for any reason, without a government permit. We always took long trousers with us in case one was stopped by the police, which was often. They extorted tourists for 'cigarette money' for any number of 'violations'. One reason was that we always had a black license plate for the car. One needed a yellow license plate for tourists. The fine was always the same. Between two and three dollars. Never was a ticket issued nor a court date set. Always one could negotiate the *pajak senang* or 'happy tax'. It was simply an extortion to gain a few dollars to the meager salaries of the policemen. It was not to change much after democracy came in 1998. To this day the police are very corrupt by our standards.

One night I was listening and watching the people practicing for a temple *odalan* or temple celebration. I stood there mesmerized for at least a couple of hours listening and watching both the

dancers and the musicians in the *gamelan*, orchestra. The dancers were mostly young girls which seemed to be about 10 to 18 years old. The musicians were men of all ages. Some had their young children in their laps as they sat cross legged in front of the *gangsas* or five keyed xylophone like instruments. The dancers were the most beautiful and the musicians were very accomplished. Henk later joined me and I asked him, "These people are really good. As a matter of fact they should be on a stage. How long have they been practicing for this event?" He replied, "Hmmm. About 600 years."

What I noticed in 1993 was a distinct lack of birds in the area around Sanding. I do know that they love to eat the rice kernels when they ripen. But what I also noticed was that several boys had air rifles and hunted the birds wherever they could find them. We learned all about the Bali Starling, which is a white myna bird with a kind of dark blue mask around the eyes. In fact they are endangered. This was so because of the international bird trade. They are very expensive. Although it is the provincial bird of Bali it only existed in 1993 in west Bali in the National Park. Only about 30 some birds were extant in the wild at that time. We did see a few rufescent birds about the size of a turtle dove. We were later to see several birds that they call *curucuk*. In the Indonesian language, which they call *Bahasa Indonesia*, the *c* is always pronounced as a *ch* sound. We later identified them as a variety of bulbul. We did see several doves that they call *kukur*. These are much like the turtle doves in the USA but they all have a checkered collar around the neck which is black and white. Many of the animals have an onomatopoeic name. Their name sounds like the call that they make. For example,

kukur is the sound that a dove makes. The pond water hen is called *kerkwok*, etc. Our trip to the new Bali Bird Park south of Ubud was most enjoyable. They had several species of Birds of Paradise that I had never seen before.

I was to learn the power of traditional medicine. I had somehow contracted an oral infection of my gums. I suspect it was from the bamboo tooth picks that we used. The lady who took care of us while we were there was always referred to as *ibu* which means mother. She was the mother of our host and speaks neither English nor Indonesian. I was never told her name. She came up with some sort of poultice for my gums. How did she know about it? I had never told her about the infection. She insisted that I spread it all over on my gums around the teeth. It was very clear from her face and hand signals that there would be no eating until I applied the poultice. I detected the distinct odor of cloves. But I do not know what was in it. I spread it on my gums. The gum infection immediately went away. The swelling was down in about 24 hours. What was in the poultice? I never knew. But the gum infection was gone.

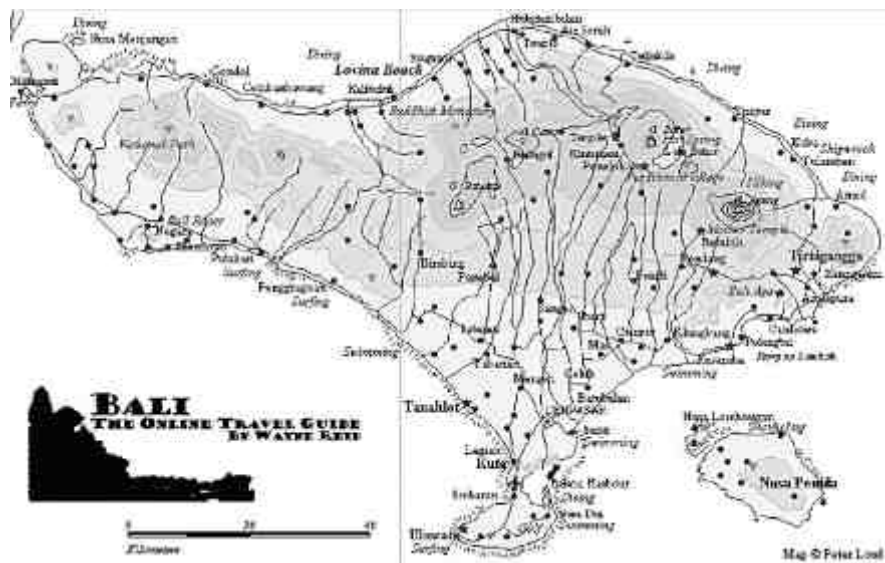
We had a wonderful stay and got to explore the entire island. Always, two or three lads from the village would accompany us on our outings. I was falling in love with the people. I think that the Balinese people invented the smile. Their culture, their religion, their music, their art and dance were certainly unique. The people in the village would ask us about our trip when we returned. They knew all about it before we could tell them. They knew where we went and what we had done. How did they know?

On one occasion we were driving along the road in the north coast of Bali. The guide books encouraged one to look out for a *Bugis* pirate ship. This is where we get the English word boogey man. They are pirates for a living. They assault a lone boat. Often a lone sailing vessel, kill all the inhabitants, take what they can sell, and sink the attacked boat. They are also the inter-island traders of the day. Sure enough, near the coastal town of Culukanbawang we spotted a pirate ship that was tied up on the pier. We stopped the *Kijang*, a boxy Indonesian version of a Toyota. We went to talk to the man wearing flip-flops, armed with a rifle, who was guarding the ship. I had not seen a bolt action military rifle except in military museums. He told us that we could go down to the ship but we couldn't take any pictures. We spent the afternoon talking with the 13 man crew who showed us all over their craft. The ship was a two masted sailing vessel about 55 feet in length. It had no sleeping accommodations. No bunks of any kind. The hold, below, was mostly empty. It did have some mahogany strips in the hold. Were they importing mahogany to Bali? Nowhere on the boat was any furniture of any kind. And we did not discern a 'captain's cabin'. The two triangular areas in the stern of the craft were the kitchen on the starboard side and the latrine on the port side. These protuberances were supports for the double steering oars that functioned as rudders. In the kitchen was a bucket of sand that they spread on the deck when they lit their cooking fires. Some blackened pots hung on the walls. The latrine, on the other side, was simply a hole in the deck that was open to the sea below. The captain was ashore with the police and had taken with him their compass which was the only navigation instrument on board. What he was doing with

the police, we never found out. No radios and no navigating instruments at all were to be found. But the crew invited us to go with them to port city of Banjarmasin in Borneo when the captain returned. Borneo is now known as Kalimantan. It would only take five days. The men of the crew were rather fierce looking and a bit intimidating with their sarongs tucked up like pantaloons. Every man had a curved knife at his belt. They carry their knives at their belt, but in front. Unlike the men from Java who carry their knives in the small of the back. Carrying a knife in the back one can surreptitiously draw a knife without being seen. It is said that the Bugis are more direct in their speech where some in Indonesia are more convoluted. Some in Southeast Asia are more indirect in all things including their speech. For example, one would think that an Asian is agreeing with you when they nod their heads in a yes orientation. But they may well be thinking, "I understand what you are trying to say. But I think you are full of beans." The position of carrying of the knife is but one indication of this observation. It is more direct. The Javanese and the Balinese custom of extending the right hand and bending over when one passes in front is simply to show that one does not have a weapon. It is the custom of the Balinese people to this day. The Bugis are from Sulawesi and they were very nice, polite, and accommodating for having such a fierce reputation. Sadly, I had to turn down the invitation to go with them to Banjarmasin because I had to leave to go to Jakarta in a few days. I missed the opportunity of a lifetime.

When we were ready to leave the island, I wanted to say something nice to the old lady who took care of us. I had prepared a 'thank you' speech in Indonesian. I said thank you and

blah, blah, blah. Then I said to the old lady, “*selemat meninggal*”. The youngsters with our suitcases on their heads dropped their jaws. They looked shocked and stunned. I turned to my friend and said, “What did I just say?” He said, “You just wished her a happy death. But that’s OK, she doesn’t speak Indonesian.” I had meant to say ‘*selemat tinggal*’ which is the expression that one uses for one who is staying. After a few awkward moments the situation was all patched up and everyone had a good laugh. I could write a book about our adventures during these few short months. But that is for another time. Back to the water problem in Amed.



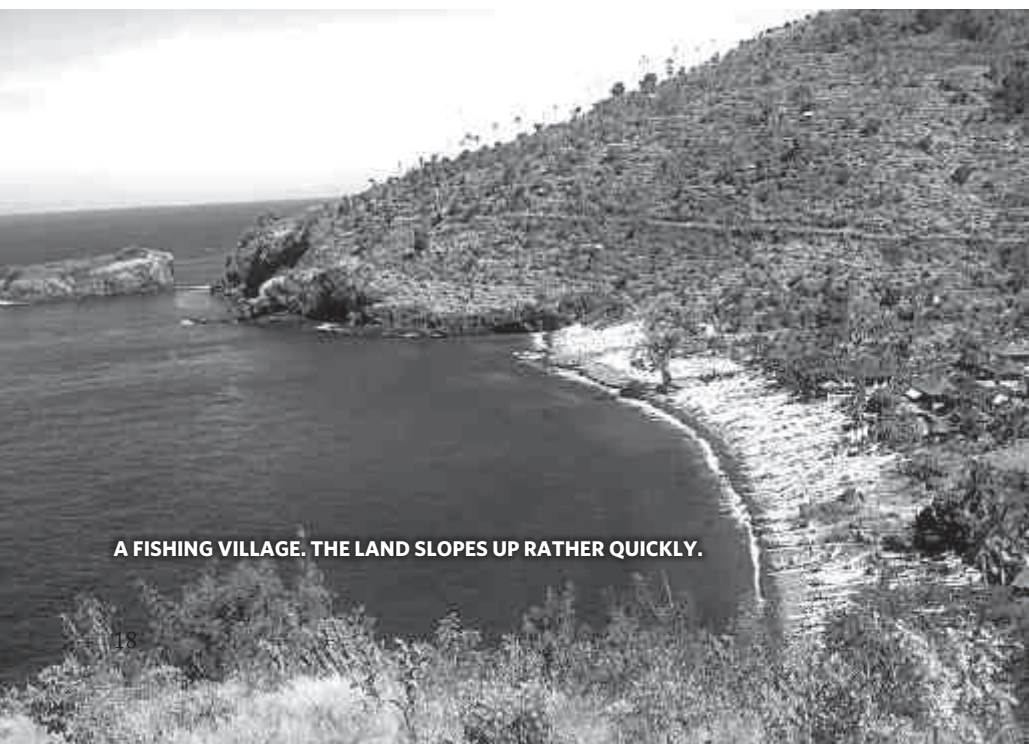
MAP OF BALI

The Amed Water Problem

Bali is but one of the several *propensi*, or states, of Indonesia. It is a smallish island in the entire archipelago of some 17,000 islands, about half of them are uninhabited. Bali is an odd shaped, quadrilateral island in the shape of a lopsided diamond. It is about 65 miles north to south and about 90 miles east to west. Some say that the island looks like the Kiwi bird of New Zealand, facing left as it lays an egg, which is Nusa Penida, the island off the south east coast of Bali. Amed is in the far north-east corner of Bali. We live in Ubud, which is in the south-central part of Bali, about an hour north of the capital city of Denpasar. Amed may be only about 25 miles away as the crow flies from Ubud but it is about a 2 ½ hour drive and the road covers about 60 miles. We drive to Amed along the coast in a northeastern direction. Then we turn north at Candidasa and

cross a range of mountains. Dropping back down to sea level we turn right at the village of Culik and then follow the north coast in an eastern direction to the project sites. The Balinese infrastructure is abysmal. This applies equally to roads, water, electricity, and health. The roads are very narrow and built originally for ox carts. The modern thing to do is to cover the road with asphalt, but they seldom prepare the road bed for the heavier loads. The heavy trucks carrying sand or rock and the tourist busses really destroy the roads, both the surface and the underlayment. When the big trucks destroy the road, they just resurface it with asphalt. If one of the measuring sticks for mayors is how they fix the pot holes, I am sure that all of the Balinese mayors would not get re-elected.

The north eastern side of this relatively small island exists in the rain shadow of the largest range of mountains on the island. The



A FISHING VILLAGE. THE LAND SLOPES UP RATHER QUICKLY.

prevailing winds carry clouds to the south western side of the mountain range dropping all their moisture, leaving the north eastern side dry for more than eight or nine months every year. And very dry it is. The coastal area is well known for colorful fishing fleets with their outrigger sailing canoes that they call *jukung*. Tourists enjoy the diving and snorkeling on the coral reefs by the coastal hotels in the area that they call Amed. The village of Bunutan with its 10 sub-villages lives in this part of the island. The village is roughly 100 square miles in area.

The life of the people who live high in the mountains is very difficult. They live up to four miles away from the coast at elevations from one hundred to three thousand feet. It is very unlike the vast majority of this 'tourist' island. Typically their homes consist of two small buildings. One is the kitchen and storage room. The other is the sleeping quarters for all members of the family. The buildings are grass roofed with woven bamboo plaited walls. There are no roads, no schools, and no health facilities available to the approximately fifteen thousand people who live in the mountains in this area. Consequently there are no cars, however a few of the people by the coastal road have motorbikes. The arid landscape is able to produce a basic corn crop once each year, not two or three crops of rice as elsewhere in Bali. An adult may walk down to a fishing village every couple of weeks to barter for some small fish and other staples that they cannot make for themselves. A few pumpkins, some peanuts, and cassava are grown but the basic diet is corn. It is too dry for rice to be grown and this is Bali where everyone eats rice several times during the day.

The water supply is often small springs located in the folds of the steep hills and can only be reached by walking from the thatched houses of the mountain folk. Isolation leads to severe shyness. They generally do not read nor write and have little or no knowledge of the national language because it is taught in the schools. Education is a real problem because there are no schools and no teachers. For the children high in the *bukit*, education is almost non-existent. The village leaders confirm that about 80% of the children never see the inside of a classroom. Almost all of the remaining 20% live near the coastal road. The goal for these families is to have at least one child go through the third grade. The ability for children to merge with society is difficult. Health facilities do not exist. Traditional medicine practice is the only health system. Economic development for these people is difficult. Economic opportunities are scarce. Rare is the person who has electricity. For those who live near the coastal road and have electricity, it means that they have strung the longest extension cord I have ever seen. And it is to power just one small light bulb. Yet the people seem happy. They are industrious, energetic and hard working. They stay where they are because of their ancestral roots or, because of rising land values, they are forced to move up the mountain to less expensive land. If they survive childhood they live a long time. We have enjoyed learning a bit of their rich culture and philosophy of life. What they need is simply a shot in the arm. Help with their water systems is not the answer to all of their problems. But once solved they will then be able to go on to solve their problems with sanitation, health, education, and economic development.



SHE GOT HER KNIFE WHEN I ASKED IF IT WAS OK TO TAKE HER PICTURE.



HER HUSBAND. NOTICE HIS KNIFE.

So this book is about water; but only about drinking and cooking water. It is not about water for bathing, laundry, or watering crops or livestock. We will only be talking, for the most part, about the first half of the first Rotary areas of interest. We will only touch on interest areas 2 through 5. Area 6 is of little interest as it does not apply. The Rotary Areas of Interest are:

1. Water and Sanitation
2. Child and Maternal Health
3. Disease Prevention and Treatment
4. Basic Education and Literacy
5. Economic and Community Development
6. Peace and Conflict Resolution

What can be done? The first step would be to help them solve their water problems. To date, with the monetary support from

Rotary Clubs from around the world, we have completed several village water projects in this area. There are at least several more years of work and many more villages to go. The idea is for the local people to design, supervise, build and maintain simple solutions to their water problem. Gravity fed systems from fresh water springs are the preferred method. Often a well must be dug or bored in the aquifer near the coast because of the lack of fresh water springs. Special attention to sustainability is then required. Someone must be able to pay for the petrol or the electricity for the pump motors. And pumps and motors will wear out in time and must be replaced. For a gravity fed system with special plastic pipes, a roll of duct tape can fix a lot of problems. If the pipes break when a cow steps on it duct tape comes in mighty handy. Typically, a large concrete tank is built as a storage tank and from there several distribution tanks of concrete or plastic are sited for every 10 family compounds. That is for 50 to 100 people. Tanks are connected with special plastic pipes. A hamlet of about 700-1,000 people can be served for about 6 to 12 thousand dollars. The big difference in cost is when fresh water springs are not available and wells must be dug. Please remember that we will be talking about only drinking and cooking water. Water for bathing, hand washing, toilets, laundry, and irrigation of their crops is not a part of this story. The World Health Organization (WHO) states that 20 liters per person per day is the minimum for survival. Water availability for drinking and for cooking is not the complete solution for these people, but it is essential for a good start.

We have considered rain water catchment systems, ram pumps, and fogging systems. Each of these ideas has been rejected for

the various reasons. Rain water catchment systems is a breeding ground for various critters and given the amount of springs available is not recommended. Ram pumps only work with flowing water and are about 10 percent effective. There are no sources or rivers in this area. Fog catchment systems work well if there exists some sort of night time fog. For these reasons we stick to gravity fed systems. And where there no fresh water spring that flows year around we will reluctantly dig or bore a deep water well. Since the available wells are near the coastal road they require some sort of device to pump the water up the hills.

People of Desa Bunutan

The people in the regency of Karangasem in northeastern Bali, especially the mountain people who do not live in the main part of a village, are relatively poor, have little or no education, have little or no access to health systems other than traditional medicine and have little access to economic development. This is an area of Bali that the tourist never sees. It is far too difficult for many tourists to hike up to see them. The people seem as rugged as their land is ragged. The terrain is in sharp contrast to the vast majority of Bali which is green and fertile all year long. If they survive the many childhood diseases they seem to live to a ripe old age. They generally do not have national identity cards because one must first have a birth certificate. And because they were not born in a hospital they do not have birth certificates. I have no idea of the incidence of child mortality or even the

mortality of childbirth which must be rather high and I don't think anyone does know outside of the traditional family. Every village seems to have a number of people who appear to be over 100 years old. Of course they have no record of when they were born and do not celebrate their birthdays. They remember about when they were born by the historical events of the time. They may remember that they were told that they were born in the reign of a certain king, the time of a significant political event, or the eruption of a certain volcano.

The area that we are most familiar with is the ten sub-villages or *banjar(s)* of the village of Bunutan. It is in the Abang district and in the regency of Karangasem. It is officially known as Desa (village) Bunutan, Kecamatan (district) Abang, Kabupaten (regency) Karangasem. This area is in the rain shadow of the sacred *Gunung Agung*, or the great mountain. There are about 15 thousand people living up here, high in the *bukit*, which is about 100 square miles in area. Tourists refer to the coastal area as the Amed area of Bali. This is but one of several pockets of poor people of Bali.

This area and the entire island of Bali, for that matter, has been completely bypassed by history. It possesses no precious minerals that we know of. It possesses few spices and no petroleum products. It possessed nothing of value to the old colonists of Europe who colonized these islands for hundreds of years. In fact it possessed nothing of value to the traders, except its people. Unfortunately, the people that were the ancestors of the Balinese people made great slaves. They were, and are today, a handsome, hardworking, and happy people. What more



SCENE OF BALI, NOTICE THE LITTLE GIRL IN HER DADDY'S LAP.

could the slave traders want? Now this part of the world has been 'discovered' by the tourists. Will Bali survive the tourism onslaught?

The people are exclusively Balinese Hindu, or what they call *tirta agama*. *Tirta* means holy water and *agama* means religion. So the old name for their religion is the religion of holy water. This is a religion that is far removed from the Hinduism of India. Comparing the two is like comparing the Unitarian faith to Roman Catholicism. Balinese Hinduism may be derived from the world's oldest written religion, all right, but it is a religion which is a syncretic mix of Hinduism, Buddhism and local animism.

The five principles of Balinese Hinduism are called the *Panca Crada* which includes;

- (1) *Brahman* or the belief in one God who is supreme.
- (2) *Atma* or the belief in the soul.
- (3) *Samsara* or the belief in the cycle of life (reincarnation if you will).
- (4) *Karma Pala* or the belief that you ultimately will be held responsible for your actions, perhaps in this life or the next.
- (5) *Moksa* or the belief that unity with God is possible after the disappearance of desire.

The local Balinese people add to this a firm animistic belief in spirits, especially ancestral spirits, and the *ahimsa* beliefs of the Buddhists, which is the belief that to do harm is not good. This simple overview of their religion may not set well with a lot of scholars of the Balinese but it is the basis for *tirta agama*. It is many times more complicated and much deeper than this.

The symbol of their religion is the *swastika*. It has adorned many roofs and religious items for a long time before a man named Hitler stole it and it became the symbol for the Nazi party. It is said that 30 per cent of a woman's time is making offerings, doing the offerings, and spending time in temple celebrations. There are so many temple celebrations that one is sure to find one convenient to your location during one's stay in Bali. We are told that practices are very different in the various regions of Bali. Perhaps this is so because of the steep ravines that tend to isolate and insolate various groups of people. While this applies across the cultural landscape, their religious practice is generally the same. There are differences in the way the various groups practice their religion but the basic principles remain the same.

Those who live in the high, dry hills stay there because of their

ancestral roots. Some are forced to move up to less expensive land because of rising land values. The tourist industry has inflated the land values. It is the same problem over the most part of Bali. The inflated land values means that farming is not an efficient use of the land – certainly not a profitable one. Sadly, some of the owners sell their land to the hotel companies and to western people who then build expensive hotels and expensive villas. The Balinese people generally have little understanding of the value of real estate. Often they will squander the money they receive from ancestral land on western goods which have a finite life span, they soon break or it wears out, and then they have nothing. I am thinking especially of cars, television sets and motorcycles. This problem is all across the island. And I suspect that it exists in other places in the world. Some folks who have rented homes along the coast in order to work in the tourist areas are likewise forced to move because they can no longer afford the rent. Their homes, high in the hills, generally consist of two buildings. They are constructed on an elevated stone foundation, have plaited bamboo walls and grass roofs. One room is the kitchen and storage area. The other is the sleeping room for all members of the family. Families tend to be rather large with 5 to 9 children. Added to the family are unmarried siblings, a grandmother, and a stray cousin or two.

Everyone in Bali knows from which clan they are from. Many of the Balinese in this area of Bali are from the clan called the Pande. This is the name of the clan originally given to iron workers. That is because it was an old specialty rife with secrets and of mysteries. It includes the art of knives and of short sword making such as the famous Balinese *kris*. Many of the people

in the Amed area come from the Pande clan. And their clan is most important. They have their own priests, called *empu*. And the Pande priests wear a distinctive garb which is similar but different than the high caste priests called *pedanda Siwa* or the *pedanda Buddha*. Their ceremonial dress is much more elaborate than the more common *pemanku* or priests of the lower caste which are all white. The higher caste members of this system are convinced that the Pande are of the Sudra caste. The Pande, themselves, consider that they are not part of the caste system of four types of people.

Traditionally the Balinese follow the four castes of the Indian Hindu system. In Bali they do not have the Indian non-caste people who are called the untouchables. We western people may have a fixed feeling about caste but their word for the caste system is even worse. It is very politically incorrect. It is *warna*, meaning color. The traditional castes are *Brahmana*, *Ksatria*, *Wesia*, and the *Sudra*. The upper three castes are referred to as the *triwangsa* and compose about 10% of the total of Balinese. The Brahman caste are traditionally the high priests. The next down, the Ksatria, are traditionally the rulers, The Wesia are traditionally the shop keepers and the Sudra are the laborers, farmers, and peasants. When one thinks about their name for caste, *warna*, it is easy to see that farmers work in the sun while the priestly caste are always shaded by an umbrella. But this is all rather fanciful and is only for the guide books. One is just as likely to see a Brahman house boy or one working as a taxi driver. There even is a rice farming village where almost everyone is a Brahman. And there are many Sudra leaders, politicians and shop keepers. They never use the word caste which is derived

from a Portuguese word and is often associated with Christian missionaries. For the Balinese, caste matters only when it matters. It remains a subject which is difficult to discuss with western people who sometimes have fixed and mostly different ideas about caste.

Christian missionaries have an interesting history in this part of the world. First of all they are not particularly welcomed by the Indonesians or the Balinese. They are especially afraid of the proselyting business. The Christians and the Muslims tend to believe that you are either for us or against us. This 'dualism' often gets them into a great deal of difficulty. We in the west seem to eschew shades of grey. It is either black or white. Either you are for us or you are not. Either you are a Christian, or you are not. One simply adopts Balinese Hinduism. The Balinese have a ceremony for everything and I am sure that they have a ceremony for when one adopts or 'converts' to Balinese Hinduism.

They tell of a story of a Dutch missionary who lived in Bali and proselyted for a period of seven years. He finally was successful only at converting his house boy. The missionary was so excited by this accomplishment that he wrote a letter to his higher ups. The headquarters sent another couple of missionaries to Bali. The new missionaries found little to do except to preach to the house boy who finally ran *amok* and killed one of the missionaries. That was the end of proselyting missionaries for some time.

The people who live high in the hills have little or no access

to the government *puskesmas* or health clinics. They depend on traditional medical practices almost exclusively. That means that they rely on a grandmother's remedies for most cases or for more difficult cases they rely on the local *balian*. The Indonesian word is *dukun*, or witch doctor, but I don't think it connotes the same thing. We have seen some strange things that the many kinds of *balian* have accomplished. One friend in Ubud, where there are plenty of government medicine and private clinics, had blinding headaches and a narrowing of his vision. His American friend named David Hardy took him to a hospital in the capital city of Denpasar. Sure enough, an X-ray and other tests confirmed that he had a malignant brain tumor. David offered to take him to Singapore or to Bangkok for brain surgery. This he would not do. Whether Made Narka was afraid of the surgery or the airplane that he had never been on, I am not sure. Perhaps both. The headaches and the blurred vision continued so he went to see a healing *balian*. After his session or sessions with the *balian* he reported no more headaches or problems. Our friend welcomed him back but, while at the same time being rather skeptical, wanted the situation confirmed by the doctors in the hospital. He took his friend to the same hospital and repeated the blood tests and the X-ray diagnosis. But the medical experts could find no evidence of his tumor. That was more than six years ago and he is still doing fine. One other story. We have stayed in touch with the family with whom we stayed in 1993 in Sanding. The father of our friend in the village of Sanding is rather old. How old? Of course he has no idea of his age but our best guess puts him, at that time, in his middle to late 80's. One day he was walking home from his rice paddies along the highway and was



TYPICAL WAY OF CARRYING WATER.

hit by a motor bike. He suffered a compound fracture of the two lower bones in his left leg. The bones were protruding out from the skin. The family had no money for a hospital stay, so they called for a *balian*. The *balian* pulled the bones back from their protrusion through the skin, set them in their correct alignment, stabilized the whole leg in a bamboo splint and put some salve on the wound. We saw him about six months after the accident. He was working, once again, in the rice fields. He showed us the scar where the bones had protruded. The only complaint the old man had was the rather nasty looking scar. So there is something to the *balian*. It cannot be explained by western medicine. But there is something.

The mountain people depend on spring water high in the hills or from wells near the coastal road. This water is traditionally carried in buckets to their homes for drinking and for cooking.



TYPICAL HOUSES. NOTE THE RAID WATER COLLECTION SYSTEM.

They dig dry wells for collecting water during the rainy season (from November to February) and also catch rain water from grass roofs. So there you have it. You can carry it, you can collect it, or you can catch it. Not drinking enough water causes health problems in many of the people. Apart from the deadly childhood problems of diarrhea the people suffer from kidney stones and other diseases from not drinking enough water. Skin diseases such as scabies are common, especially among the children.

Basic sanitation is a learned behavior and is far different from Western standards that we are familiar with. Open defecation is the norm. We have never seen a toilet or a latrine of any kind in these rural areas in all of the years that we have been working there. It remains an assumed problem even though the population density is very low in this most rural of areas.



COLLECTING WATER IS A HOLE IN THE GROUND.

Washing of the hands is almost non-existent due to the scarcity of water. Bathing is also problematic. We have seen no men at the bathing springs, only women and children.

The people are almost all subsistence farmers. They grow one crop of corn per year. Rice is not grown because of the dryness. Corn is supplemented with a tenuous planting of peanuts, pumpkins, and/or cassava. All else is bartered. The corn is boiled or popped during the long dry season for everyone in the family to eat. The popcorn is quite delicious. We do see a few livestock including Balinese cattle, pot-bellied pigs, and flop eared goats close to the main road. And chickens. But it is not the norm.

Politicians and governmental officials rarely attend to their needs because of the difficulty of accessing them due to the lack of roads or trails to their location and the people's

natural shyness or the fact that they are not assertive. Non-Governmental Organizations (NGO's) seldom work here because of the difficulty of access. The water problems are not unknown by either the politicians or the local government, however. At every election cycle these problems are discussed *ad nauseum*. But after the election very little is done about the problem. The villagers who are lucky enough to live by the coastal road are the exception to this economic problem. They are a mixture of farmers and fishermen and many of them have jobs in the booming tourist industry. They are relatively prosperous compared to the subsistence farmers in the high dry hills. Many of the coastal people find jobs in the various tourist hotels and the restaurants which are being built at an astonishing rate. But because many of them do not go to school, their English language and computer skills are very poor or nonexistent and many tourist accommodations will therefore hire people from a village far away; a more prosperous village where the children go to school. There is another reason why enterprises do not hire from the same village. This is because of religious ceremonies. If the village is celebrating one of their temples all citizens are compelled to attend. If there is a death in the village, all citizens are expected to participate in the many ceremonies including the cremation. Hotels and restaurants cannot function if all of their staff return to their village for the mandatory ceremonies.

Indonesia has called itself a democracy since Soeharto was overthrown in 1998. It has held direct elections since 2004. One day, when Indonesia was having an election campaign for the local offices, I asked our friend Ping for whom he was going to vote. He replied that he would not vote. But he did attend the

several rallies and was the proud owner of six different t-shirts that were passed out at the rallies of the many political parties.

During the day one can see the homes of the subsistence farmers. From the coastal road one can see that the scattered homes seem to go on forever. And they do. They seem to go far up in the high dry hills. At night one can see the lights of those who are lucky enough to have electricity. There seems to be a line where the electricity ends. Beyond that line it is all dark, but the houses continue. Perhaps it is the limit of the length of the extension cords that makes this line. I am not sure how the people with no money pay for their electricity. Some, who have money, do pay. But some who have no money still have a long wire from the area of the coastal road. At night you can see that it terminates in a very distinct line.

This is to say that the people who inhabit the mountains to the west of the area of Amed have very little. So we have decided to contribute what we can.

The Beginning

For a little over two years (not continually, but on several trips) Ping and I explored high in the mountain areas, having a good time and looking for natural springs that we could possibly tap. This is the story of the very first climb to one of the villages. Ping came by early in the morning with a man named Wayan Suparta who lives in Banjar Gulinten Kelod. It was already quite warm and humid. He had on a wool hat and a flannel shirt over a t-shirt. Our mission was to hike up to see a fresh water spring (or springs) which could be tapped to provide clean water to a group of families on the *bukit*, or high hill. Kim Stogner, an American friend, was visiting us and we had taken him to the Amed area. So we were off. We rode in a small flat-bed truck to where the four of us were met with a couple of guides and we started to climb.



WAITING TO GO DOWN ONE BY ONE.

Right off the road the trail is very narrow and very steep. Just a foot path, really. Soon the foot path disappeared and we were hopping from rock to rock. Wayan Suparta, who speaks only a little Indonesian and absolutely no English, told us it will take three hours or so to climb. It is hot, the sun is very strong, and there is almost no breeze. My shirt was soaked through after only ten minutes of hiking. I'm beginning to wonder if I can take three hours of this. If we had known then that it would take us more than 7 ½ hours...

We passed many family grass roofed houses on the way. It is very dry and the crops look very poor indeed. Some young corn fields (actually small terraced plots) were quite dead. We couldn't help but take note that these people only get one crop each year. And this crop was definitely dry and dead. The families near the road were able to carry enough water to keep their crops alive.

But the further up we trekked the worse it was for the crops. About half way to the spring, we found one farmer who was lucky enough to have some spring water. This they stored in a square concrete cistern which was $1\frac{1}{2} \times 1\frac{1}{2} \times 1$ meters. That is about two cubic meters to service 66 families. It is interesting that this farmer shares the water with 65 other families. That would be four or five hundred people. The flow rate is unknown, but he seemed to say that it took 24 hours to fill the *bak*, or tank. If my math is correct, the *bak* is about two cubic meters which is less than 2000 liters which is about 500 gallons. That means that each person would get less than five liters per day if the water were evenly divided. This is water for drinking and cooking only. This is not including water for sanitation, and etc. That is far from the 20 liters per day per person that the World Health Organization recommends just for drinking or cooking. And that is just for subsistence.

We did see one gravity system from a rather large spring. The source of the water was trapped in a small reservoir and then fed to a large bamboo stand pipe. Near the bottom of the large bamboo were four holes, each with a plastic tube connected to long plastic tubing which ran to the distribution points. The tubing was about $\frac{1}{4}$ of an inch. It looked like the surgical tubing associated with oxygen tanks in the west. The flow was stopped when the tubing was doubled over and secured with a small tie.

About an hour into the journey we took a rest stop that was really needed by my leg muscles. But we have a long way to go. Ping and Wayan Suparta cut some tall bushes that bear a small, sour fruit called *kapundung*. They said it is good for thirst. And



TYPICAL HOUSES. NOTE THE RAID WATER COLLECTION SYSTEM.

they were. Ping carried a bunch of the fruit with leaves on it for a hat. The sun was fierce. On and on we climbed up the hot, humid, but dry *bukit*. At one point, Ping explained that we were now in Banjar Gulinten Kelod. There are 178 families living in this area. That is about 1,500 people. It has no water. The people must go down to the road by the sea to get their water from community wells. Springs were known to them higher up the mountain but they did not run during the latter half of the dry season. It is also difficult to get to because of a very large and very steep cliff that isolates them from the springs, especially during the rainy season. They told us it is a little over one hour going down and double that coming back up the trail. That is more than 3 hours to get one bucket of water. And that is with much stronger and younger legs than mine. We had been hiking for more than three hours where they told us that the villagers took only two.

This is well into the wet season, but they have not had much rain. They do collect rain water from the grass roofs. They use large bamboo to make gutters and store the water in jugs and buckets. But the grass collects any number of insects, bird droppings, and dirt. It all washes into the jugs when it rains. It makes for some really some nasty stuff. The rainy season is from November to February, but this season has been unusually dry.

The people in lower Gulinten were very friendly. They never see a westerner up there. We were taken aback somewhat by the shyness of most of the people. When we stopped the first to join us were the young children. And, yes, they would touch our arms to see if our color was real, or it would rub off. The views of the ocean and of the great mountain, *Gunung Agung*, are just spectacular. In the cooler part of the year during the dry season, this would make a great trek just for the hiking and for the views.

We stopped at the home of the *Kelian Banjar*. In Balinese this is the same thing as *Kepala Dusun*, or village head which is the Indonesian equivalent. We were served coffee and little red cakes which are so popular with the Balinese. I was not to remember his name until later. But we took some photos of his family which we will give to Ping to give to them. While drinking the coffee, I remember the same thoughts and feelings I had a short time ago when I trekked up a similar *bukit* in this area when we stopped to have coffee at the home of our guide. Someone had to carry this water all the way up here just to make this coffee.

At about 1500 hours we stopped for another much needed rest (at least for me). We could see the spring across yet another gully. They estimated that it would take another two hours to get there. Regretfully, we decided not to press on. I could not imagine climbing down in the dark. And we had no flashlights with us. The trail traverses some very steep and very deep ravines. It is treacherous in spots. So we failed to reach our objective. I very much wanted to see the spring up close. It flows out of a rock face and reportedly runs all year long. Their plan is to build a small dam to hold the water and then simply run a flexible pipe for about 600 meters to a large *bak*, or cistern, as a holding tank. From there they want to build eight smaller *bak* to distribute the water to the 178 families in the village. The smaller *bak* would be 1 ½ x 1 ½ x 1 meters. The total material list is in some question. It looks like we will need 64 bags of cement, 3 kilometers of plastic pipe, 600 meters of the larger flexi-pipe, rebar to strengthen the *bak* and about 4 trucks of sand for the distribution tanks. All material would be positioned on the coastal road for the villagers to carry up to the construction site. The stone for the aggregate is available here. It is just a matter of pounding up a few rocks. All of the villagers will contribute to the labor force. The big *bak* will take 24 bags of cement and 2 more trucks of sand. This bigger one would measure 4 x 4 x 3 meters. If we just had a helicopter to haul in the supplies. No motor vehicle, including motor bikes, could come up this trail and they have no pack animals. At this point I was just hoping for a helicopter ride down from here. A hot air balloon would do.

The trip down took a little over 2 hours. My knees and calves were like rubber. The calves were too tight and the knees too wobbly. I asked Kim if he was getting light headed as heat stroke could be a big danger. We were too hot and very dehydrated. Our water gave out long before we reached the turn around point. About a third of the way down, we found a small spring and refilled our water bottles. Ping assured us that this water was pure and safe to drink. It certainly tasted great. What a blessing. What a relief. We drank and were grateful for it. I don't recall water ever tasting better. On the way up, we passed other small sources of water or springs but Ping would say, "This water only safe for local people."

We left our new friend, Wayan Suparta at his house on the way down. One of the sons of one of the *banjar* leaders was our guide for the rest of the trip down. We arrived at a small *warung* or store on the road at 1715 hours. Ping went off to find us transport. We have about 10 kilometers to go back to the bungalows. There was a kind of bench made out of bamboo in front of the *warung*. Kim and I collapsed on it and I don't think we said a word for 15 minutes. We had been hiking for more than 7 hours and I, for one, was pooped. My Teva style strap sandals are not good hiking shoes and my ankles are swollen. I have a nasty bite from some insect on the top of my left foot. But we are alive.

A few weeks later we were in Bangkok Thailand and I took my foot to a clinic. The bite had continued to fester and we needed to fix it. It was causing me to limp a bit. The nurses at the clinic washed and bandaged my foot. They also reamed out the hole

of the bite. Then they gave me a course of antibiotics which solved the problem.

No wonder that the government will not fix their water problem! No bureaucrat would climb so far just to examine the problem. No wonder that these people see neither tourists nor travelers, much less government officials. Those that are lucky enough to have electricity get it by a single long extension cord. It is not the norm. And there are no farm animals high in the hills.

Amazingly, the people we saw looked healthy and they were very happy. I still do not have a satisfactory answer to why they live in such a harsh place. I asked one village chief why he lived here. There is no water, there is no work, and it is very difficult to grow anything to eat. He told me that he was born here, his father was born here and that that is why he is here. When I asked him why they had so many children (they have between 5 and 9 children), he said, "Who would take care of me when I get old?" Without ever saying so they seem to indicate that, 'It ain't much, but its mine'. They all have a magnificent view of the ocean or the great mountain. I guess there is something to staying where you were born and where your umbilical cord is buried or where one's parents and their parents were born, back to forgotten generations. Ancestors are revered, if not worshiped in their syncretic and curious mix of Hinduism, Buddhism, and Balinese animism.

It would take so little to help these people with their water problem. They are willing to do all the labor. They are willing to carry up sacks of cement to a place that exhausted me just to

get to. And a sack of cement is either 40 or 50 kilos depending on the brand. That is about 88 or 110 pounds. So this would be a materials only project. And that may be the best kind of help as these people are certainly invested stake holders in the plan. Self help is the best help.

The next day was a very relaxing day. Ping, Danielle, Kim and I got all enthused about our water project idea. Of course, we had no money as of yet. We ate supper that evening in a small restaurant near our cottages in the hotel Hidden Paradise. By the way, they claim it to be the first hotel in the Amed area at least that is what the sign says. We are suspect of any signs we see in Bali. Back in Ubud we once saw a sign on an antique store. It said, 'Antiques made to order'. Yes, we are suspect and skeptical of any signs we see. At the restaurant we were joined by two couples who were also tourists. They were all writers of one sort or another. One man was the curator of spiders at the New York museum of natural history. He had a PhD in spider-ology (if there is such a word). I had never met an arachnid expert. We did learn about the value of spiders and the enormous amount of insects that they consume. They have many spiders here. Some are as large as one's first joint on the thumb, not including the legs. But the interesting person was a Swiss woman who wanted to talk about economic development. We had spoken of the lack of economic opportunity for the subsistence farmers who live high in the mountains. Her family was Swiss and they made goat cheese. There are plenty of goats in the area by the road. Why don't we teach them how to make goat cheese? Of course the local people would not eat it but we could sell it to the hotels because the tourists like cheese. The

only problem was that in order to make good cheese one had to have good goat milk. And to get good goat milk one had to make sure that the goats drank a lot of water. Again, water was the problem.

My contribution to the discussion was to teach the women how to tie and make fly fishing flies. The women are so skilled in making the intricate blessings every day. What would it take to teach them to make about six of the most common flies that were the best sellers in the fly shops back in Colorado? All they would need would be simple vices, some thread and some hooks. They already have a lot of feathers and fur. A sack full of fishing flies would be a fortune to them. I resolved to check with the fly shops back in the states and to set up a charity distribution and marketing system.

The best idea came from Kim. He lives in northern Thailand and he had observed the women shucking peanuts until their fingers were sore. Why doesn't someone invent a portable village peanut shucking machine? We were later to learn that he had discussed the idea with some of his business partners in the USA. His partners were in Boston for a business meeting and they were talking about Kim's idea for Bali. They were overheard by a man who was a retired circus handyman. He fixed everything that broke in the circus, which was almost everything. Upon hearing of the problem he said, "Give me a few weeks and I will come up with something." A few months later they were back in Boston and the man showed them his prototype. They were so impressed that they took him to Massachusetts Institute of Technology where the hot-shot professors had told them

earlier that they had heard of this problem many times. They said that many have tried but no one had come up with a good mechanical and portable village peanut ‘shucker’. They were most impressed and MIT ended up giving him the prestigious engineering design award of the year. They also set him up with a web site and a non-profit organization to test market his new design. They had initially tried to test his device in Indonesia but complications with customs permits sent them to Africa where they are test marketing his invention. And it all started with the planning of the water projects in Amed.

But as we were to learn: “If the many failed development projects of the past 60 years have taught us anything,” wrote one critic, Toilets for People founder Jason Kasshe, “it’s that complicated, imported solutions do not work”.

You want to do this?

I couldn't wait to show the project area to my new found friend and compatriot. His name is Ron Dixon from Kelowna, British Columbia. He lives in Ubud about half the year. After a Rotary Club meeting in Ubud he had expressed an interest in our plans. I wanted him to see the very proper and finished project that the Jimbaran Rotary Club had done. It had been finished for almost a year. It was a total of three cement tanks near the road to Banjar Canguang, all with proper Rotary symbols attached. All were affixed with the name of the Rotary Club of Jimbaran and the names of the several Australian clubs that provided the money. We drove up the road to the top tank. Its bottom had separated from the sides due to its poor construction. It would not hold water and could not be fixed. The jungle had taken it back. It was all covered in vines. The second tank was in a

farmer's yard and we noticed that all the pipes had been cut. The water was diverted to an open tank where the owner told us, "Somebody built a tank on my land without asking. So I am selling the water to the villagers near here." The third tank was closer to the main road and seemed to be working. I climbed the bamboo ladder to the access port on the top and peered in. Inside was a woman standing in about 4 inches of water. She was doing her laundry. Ron who was very disgusted said, "And you want to do this?" We immediately changed our plans and decided that the best way to help these people was to let them design and build the system. It is always best to do just what the people want. We decided to up-date century's old systems with modern materials. Replace pipes made out of bamboo with plastic pipes and burned out oil drums with plastic or cement tanks. And to place the distribution tanks where the people wanted them and to let them build the systems. And no signage that advertised how good and benevolent we are. But that meant working a long way from the only road.

Actually, on the way down the bamboo ladder leaning against the side of the tank, the ladder collapsed. I fell to the ground and suffered only a skinned knee. It seems that bamboo ladders are not built for the heavier western person. In any event I ruined the existing ladder and I don't know how the woman with her laundry ever got down. Everybody had a good laugh when they determined that I was only skinned up.

On a subsequent trip Ron wanted to see the area of Banjar Gitgit. Ping and Ron climbed to that village while I, with my guide, scouted and planned a different village. I drove his car

to the new site where it took only about one hour to climb to the top of Batukeseni. Since my hike was not as far, we finished earlier than his group. I was to take his car back to pick him up. It was a drive of about 15 kilometers, about 9 miles. He arrived shortly after I arrived and just stood there. Soaking wet and out of drinking water, he was too tired to sit down. On the drive back to Ubud he said, “Whew, you sure picked some remote areas”.

So our philosophy was this: Build systems that the people wanted only after conferring with them. Let them design, construct and maintain them as this would insure a better sustainability. We would only approve their plans, hire a local supplier for most of the construction material, and insure that the proper material was delivered to the road at the proper time and the proper sequence. The villagers would carry all the supplies to the construction site and build the entire system. They would first discuss the project and use the time tested principle of *gotong royong*, or working together. It is a responsible use of our resources and keeps the welfare of locals in mind. It is sensitive to the environment, respectful of their heritage, their aesthetics, their culture as well as being sensitive to the needs of these people. It maximizes the benefits to the locals, minimizes the many negative social or environmental impacts, and it would help the locals to conserve their culture and their fragile habitat. In short, we really believed that we could be of some assistance.

On a Saturday in mid-September we were staying in Villa Bhuna Alit in Ubud. I was up at 0500 for some reason. It was a good night for sleeping, I think. We sure do sleep soundly in

Bali. We had a breakfast of *nasi goreng ayam* (fried rice with chicken), *jus mangga* (mango juice) and *kopi Bali* (coffee) which was just excellent. The owner of the hotel, Made Midra, came by with Ketut, one of the houseboys. He is from Banjar Abang Kelod and lives next door to the *Camat Kecamatan Abang*, or the district head. He would be the district chief who we need to include in our plans for the water projects. Made said that Ketut could go with us to meet with the *Camat*. Of course it would be a way for Ketut to get a ride home from here. It is a 2 ½ hour drive.

At 1230 we drove the motorbike up the narrow, long and winding road to Marilyn's house at Bentyung to meet with Marilyn Carson and David Seligman. Danielle and I showed them the power point presentation. Marilyn now has a better idea of the project. She is still enthusiastic, but still wants more and more details. Her idea of 'due diligence' is a good one, but the time is short and we must get them to step up to the table with money for this project. We can worry about a lot of the details later. She was a bit put out with Scott Allen, from the Rotary Club Colorado Springs Interquest, for contacting the District Governor in Jakarta before the Bali Club has voted. Scott is a real 'get things done' kind of a person. He is very knowledgeable about Rotary finance and is the 'go to guy' in the planning of a project. In discussing the plans with Scott when we were back in the States, he mentioned that we should put in the budget a line item for helicopter delivery of the material. Never mind that there are no helicopters in Bali for hauling supplies. I recall thinking at the time that if the village chief were made aware of idea of a budget line for a helicopter, he

would say something like, “Let me have the money and I will take care of the problem.” Oh sure, give him the money and he would have a thousand women down the mountain and on the road at first light in the morning.

David seems to be the contact point for this project and shares our frustration with gathering so much information that the window of opportunity will force the project into the next fiscal year. David is to contact Anton in Jogjakarta, Kadek in Karangesem, and the Swiss woman who owns a hotel in the Amed area. Marilyn’s concern is whether or not other agencies have projects, have failed at projects, or are planning water projects in the Bunutan area. I told them that I have seen the Banjar Lean project and have heard about the European Dive Shop water project in Amed, but have not seen it. I am not even sure if they have started. There seems to be nothing at all in the Desa Bunutan area. All in all we had a nice conversation, but several of the key members of the Rotary Club of Bali Ubud (RCBU) were not available. Adriane Oberoi is in America, Kadek Arie is working somewhere in Karangesem, Daniel Elber, just back from Switzerland, is in Muntigunung, and Cheung Chu is in China. Marilyn had emailed David on 4 September with a list of things to do, but he has yet to get started. The other news is that a Rotary Club in Hawaii is willing to put up some money, \$3,000.00 I am told. How this fits into the scheme of things, I do not know. We finished the meeting with a fuzzy set of marching orders. Who is going to do what and when is a little blurry. I will contact Ping at Lipah Beach and bring him up to speed.

We went to Amed for the weekend. On Friday Ping took us to look at some land for sale. About 3.4 kilometers from the intersection in the road at Culik, headed north. At a *banjar* (I can't think of the name) we turned east to the sea, about 500 meters. The village is dirty and the people look very hard. This is a poor part of Bali, but these folks looked the poorest. About all they have to sell is their land, which is a shame. The land for sale was literally along a cliff on the beach. The very wide black sand beach was beautiful, full of the colorful local sailing craft or *jakungs*, which are really dug-out canoes. I asked Ping if the owners of the boats pay the owner of the land to park there. He said no. Then he said if we bought the land they would probably move elsewhere. And that is a real story. For generations they have parked their boats there. I don't think any white person or *tamu* would be successful in getting them moved. The owner of the land was to meet us there, but he failed to show up. While we were wandering about (Danielle had hiked back up the very steep road and was in the car), a man came up and introduced himself as the owner of the land on top of the cliff. He wants to lease his land of some 40 *are* which is about one acre. Now this would really be a nice place to build a house. To the west, a clear and unobstructed view of Ganung Agung. To the south, a beautiful bay full of colorful *jukungs*, or outrigger canoes, with their colorful lateen sails. In the center were some shrines to the sea goddess and some fishermen's shacks. To the east, a panorama of the sea with Lombok in the distance. An architect could have a dream, designing a one-story Balinese style house with garden, swimming pool, guest house, and staff quarters. Access to the black sand beach would be a bit of a problem. But the Balinese are very good at solving such things. A very steep

asphalt road goes along the southern boundary of the property to the beach. It is so steep that only foot traffic goes along it. The villagers all use it to take their children to the sea to bathe. There is a water well on the property but its ownership and use is not well understood by us.

Ping was originally very enthused about our desire to build a house in the Amed area. He had it all figured out. He would quit his job at the hotel and become our manager. He would run and take care of the place. His wife, Juli, would do the housework and the cooking. We would build a small house for him and his family on the land near our house. Everything would be just swell. If only this were nearer civilization. Reluctantly we told Ping that it was too remote. It is a two hour drive to get a roll of toilet paper. Someday, I am certain, there will be a beautiful villa or perhaps a hotel on this beautiful bay.

Later that evening we had dinner Ping's home. They don't have much money. Juli was a wonderful hostess and prepared some great food. We ate on a small round marble table on the dirt floor amongst the animals. The marble table was old, cracked, repaired, but still serviceable. It was rescued from the hotel where Ping works as they were remodeling. There were chickens, ducks, geese, dogs, three cats, and one fat pig around us as we ate. The dirt floor kitchen had a wood burning fire. How she could cook such a delicious meal from such a primitive kitchen is still a mystery to us. Strangely, we ate with the two young sons, Ogi and Agus. Ping and his wife said that they would eat later. We had the feeling that they would eat only after they were sure that there was enough food. We were here one time

during the rainy season and the roof leaks in several places and the dirt floors turn to slick mud. Our first several trips to a friend's home in another village led us to conclude that with \$100.00 US we could really fix the place up. But after a time we just live and let live. It is hard to fathom but it is just the way it is.

On Saturday at about 1300, Ping and I took a motor bike to the *sekola*, SMA Swastiastu in Culik which is a senior high school. I have been asked to be the “native speaker” in their English classes. There were two classes of about 40 students each. And what questions they had! About the only Americans that they see here are relatively well to do white tourists. The Europeans and Scandinavians are more into backpacking and trekking and are normally much younger. The Australian tourists and the Americans seem to be older. This is just an observation; it may or may not be correct. The students have no concept of our economic structure or especially our middle class and our mix of races, religions, and political passions. We can learn a lot from these people but to explain the concept to them is like trying to tell a fish the concept of being wet. They are very curious about America and her culture. But they are, like many in the world, recipients of the media and of the movies (not to mention government propaganda). It was a fun and engaging experience. Their English is very basic. Although it is a required subject, I suspect the ‘teachers’ are teachers first and not well versed in the English language. Not unlike some of our teachers who teach because they have a teaching certificate, not because they have any expertise or experience. Before, between classes, and afterward we sat in the teacher's lounge and head master's

office. This school's very existence owes its being to volunteer teachers and NGO funding. Only about 20% of the children in the one and only junior high school near the road in Desa Bunutan make it to senior high school. There are two senior high schools in this entire area. They include both this 'volunteer' school and the government high school in Culik. And this is by the main road and a many miles away from Bunutan. These were the lucky ones, but I fear they are cheated out of a quality education. They go to school 6 days a week, year around. The children were 15 to 17 years old, well-scrubbed and rather smart looking in their uniforms. White shirts and neckties. Light blue pants for the boys, and the same color skirts for the girls. It was about 2:1 boys over girls. Their ambition upon graduation is to get a job cleaning rooms in a tourist hotel. It makes me a bit sad to think about it.

We went to visit some other friends the other day. Doctor Dietmar Mueller, an East German man, and his Balinese wife, Anis, have a fabulous home near Lipah Beach near where we always stay. We did not know that she had been sick. She had some mysterious illness the day before. She had been to a 'party'. It may have been a religious celebration. She drove the car home and then went into a coma. She stopped breathing and her heart stopped twice. Her husband, Dr. Mueller, did mouth to mouth and heart massage while they waited for the ambulance to come which was three hours away. The ambulance never came. The servants called a *balian* (traditional healer -- witch doctor) who came and gave her some local medicine by blowing it up her nose. She gagged and purged all of her body fluids. Then she slept for ten hours and was fine. The *balian's*

name was Dr. Putu Pande and he came while we were there to check back with her. Yes, a house call. He told us the same story all over again. About that time she came down the stairs from her bedroom. Anis looked and sounded fine but was a little tired as she told us the same story, now for the third time. She is (and was yesterday) a beautiful woman. I could have talked to the *balian* for hours. He is also a medical doctor. But I do not know where or even if he went to medical school. There is much to be said about traditional medicine. I have seen it work fantastic cures from broken leg bones to malignant tumors of the brain. There are no western medical explanations. What we do is not what the average tourists sees or experiences here in Bali. I am glad we are 'visitors' and not 'tourists'.

The Bali water project goes slowly. We must first get a Balinese architect named Kadek Arie and a California business man by the name of David Seligman here in Amed at the same time to inspect the construction sites. Not an easy task. One is in Singapore and the other in Tulamben (on the island of Bali). It is like herding cats. David is full of ideas that have some merit but his ideas are a little lacking on usefulness and follow through. For the contact person he is leaving out many of the details. I am not so sure that he is the correct person for the host club's project director. So we leave today (Sunday) to go back to Ubud. We will give it another go later.

In early October of 2007 the plans to go to Amed change almost hourly. Kadek who is the Balinese architect and engineer and Mr. Chu who is the Chinese architect and engineer will link up in Tulamben and then drive to Amed early tomorrow morning

and to meet David Seligman and me at Hidden Paradise Hotel. David decided to ask his wife Brenda to go with us. That really irritated Danielle. She declined to go with us when I asked her. But it was 1100 and they are to pick me up at 1200. Then David called to say that Don Bennett would be going with us. He doesn't look the type to want to trek up into the hills. When they arrived at close to 1300 they had Don's wife, Sue, with them. So we all piled in and were off. Danielle had already departed for her walking, shopping trip. The car is an eight passenger Suzuki and is quite nice and very comfortable. We are to drop Sue off in Amlapura. Actually she is going to stay at Saraya Shores in Saraya, which is just north east of Amlapura on the ocean. She had made reservations for lunch for the five of us. And what a lunch it was! The chef, named Sasza (I am not sure of the spelling) grilled a large red snapper. It was filleted long ways and the part with the head on was served to us. Plenty of fish for five people. *Nasi putih* or white rice, fried hash brown potatoes like a potato pie, and vegetables rounded out the lunch. It was really a feast. Then the four of us were on to Amed. Brenda is prone to car sickness so we went back to Amlapura and around Gunung Lampuyang rather than taking the winding and steep road along the coast. Don and I shared a room. We all ate at Pak Brith's *warung* and had an excellent meal. Pak Brith said a big hello and sat with us while we ate. We told him about the water project. It seems as if the word is out that we may be doing many water projects and everyone seems to want to be a part of the action. Everyone here has a water problem and where to start is a big question. We turned in early.

Up for breakfast at 0700. Ping came down to the restaurant as we were finishing. Don will take a transport back to Saraya Shores as he will not trek with us. I had a lot of fun showing the village chief of Canguang and the headmaster of the only junior high school in the area the Google Earth stuff on my laptop computer. I told them that using the mouse was like flying like a bird over the land and they were amazed. I showed them how to make it work but it was beyond them to do it. So Ping and Wayan (both gardeners at Hidden Paradise) spent a long time identifying the *kepala* (head man's) house, the school and the location of the *mata air* (the springs). Unfortunately, I neglected to save the locator pins on the map and the work was lost. Kadek, his driver, and Mr. Chu came about 0945. We departed at about 1030. Kadek had arrived in business clothes. Nice button-down shirt, street shoes and black pants. He was not dressed for the hike. He borrowed some tennis shoes and bought a long sleeved t-shirt for the trek.

David, Mr. Chu, and Wayan went with their guides to Banjar Batukeseni while Kadek and I took Ping, Kadek's driver, and the other guides to Banjar Canguang. We split up Kadek and Mr. Chu because they were the two architects and engineers. It was one hell of a hike. I was really getting to think that I should never want make one of these treks again. Kadek was very tired also. But he was a most valuable asset and took (or made his driver take) many notes. He also had a good camera and took many photos. I had accidentally left my camera behind. We found 4 or 5 springs, two of which had great flow. We calculated flow rates and Kadek made engineering notes. We got back down about 1630. Going down is harder on the legs, calves, and knees

than is going up. After climbing down for some time it was a real treat to climb up for a while. It seems to rest the legs a bit. But climbing up is tougher on the lungs. About 1630, we caught up with Ping and the rest of the other party. Ping was holding up both arms with the thumbs up sign. When I got there, I could see that the car was just around the bend on the road. What a wonderful sight. We had plenty of water with us with which we supplemented with spring water. Also the *kasumbi* fruit was not in season so we stopped many times and ate *jambu monyet* or monkey fruit, which is the fruit that is on top of a cashew nut. It is somewhat tart, but refreshing if you are thirsty. So, soaking wet and really over heated, we assembled at the restaurant in Hidden Paradise. David and Mr. Chu were already back. Their climb was not as far. We compared notes and war stories, then agreed that David and Kadek would assemble their notes and put all the photos on a CD and have them ready for the Rotary meeting on Tuesday. All in all it was a very good trip. At the very least it gives the Ubud Rotary folks a good idea of the project. I had the sense that now, we are really making progress.

On a different climb we were taking a break to rest the legs and the lungs. We had stopped under a small grove of trees for shade. I was sitting cross legged on the ground when a fruit fell from the tree right between my legs. I was a bit startled. One of the guides laughed and said that it was *jambu monyet* that fell. I know the word for monkey is *monyet* and as I looked up I didn't see any monkeys in the tree. Actually, I thought I had heard them talking about a 'drunken monkey'. The cashew fruit is called *jambu monyet* or monkey fruit. We all had a good laugh. The people know that I do not quite understand their

dialog of Balinese. So they try to speak Indonesian, often with comical results. Their bad Indonesian is a good match for my bad Indonesian. But somehow we manage to communicate. In Ubud I am constantly amused in watching a Chinese tourist and a Balinese shop keeper haggling over the price of something. And they are trying to do it in English. This island is really a polyglot of languages.

We had several meetings with the various leaders of the villages. Back in 2007 it was the days before cell phones (at least there were no cell phone towers in this area). We would pick a date for the meeting, then tell Ping a couple of days before to send runners up to the various villages to inform the leaders of a meeting to be held. Now, just several years later, we just call them on their cell phones. It is amusing to watch the cell phone revolution. The technology is proceeding faster than the government can figure out how to tax it. The meetings we held would be in the Indonesian language because it was an official meeting. Neither the villagers nor I understood the national language very well. The villagers only understood Balinese and I did not. So the meetings would be conducted in Indonesian, translated into Balinese for the leaders, and then into English for me. At one meeting I had prepared a list of about 14 questions for which I needed answers. Each question had at least three parts. I got the answer to only one part of one question. It seemed to take forever to do the translation. At this particular meeting we had run out of time.

We did a survey of what had been done and by whom in the past. We learned a lot about the area. More than we cared to

learn, in many ways. To my knowledge there are only three small water projects in the area of the main village, Bunutan. All three of these projects are accessible by vehicle, albeit with some difficulty. One is located in Banjar Tuba and was funded by the Rotary Club of Nusa Dua in conjunction with a Dutchman named Hans Liefer. It is a fine system that was done for a group of families by a local westerner who had lived in the area for some time. The only problem was that he allowed only his extended 'family' to use the system. He could care less about the others in the village. When I spoke about this problem to a woman in the Amed area she informed me that the Dutchman was not a very nice man and made me promise that I had not heard the information about him from her. She was fearful that I not reveal the allegations that she was making nor reveal the source of the information. She was fearful of the dark side of this paradise. I inquired about the man from time to time. He is also not well liked by the local people. At a much later time we met him on a path to one of the villages. Ron Dixon had parked his car on a small road facing down the hill. This same man came up the path in a small jeep. He came right up to the front of Ron's car and blew his horn. We came running from where we were to let him pass. He would not move and the path was too steep for Ron to back up his car. He would not move his car to allow Ron to maneuver. Four of us finally pushed his car back up the hill to allow him to pass. The Dutchman had a young boy in the jeep with him. The young lad looked very sad and said nothing. We were later informed that he was very fond of young boys. But, then, I think I knew about this.

The second system is a hand dug well near the coastal road and

they pump the water to a tank in Banjar Lean. From there it is gravity fed to an unknown number of tanks. This system was designed as a well that uses an electric pump to force the water to concrete cisterns up the *bukit*. This project was done by the local group, Yayasan Anak, with money from some Christian group in northern Europe. The only problem is that the electric motor burned out for some reason. I suspect that the well ran dry while the pump was still operating. The pump and the motor both disappeared but the electricity is still hooked up and live. When I told Yayasan Anak about the problem they said that there was no money to buy a new motor. They never did tell me the details of how to contact the Christian group nor its name. I am not sure if the Christian group even knew that there was a problem. The top tank is still in use, getting its water from some spring higher up the mountain. The owner of the land where the tank is located is selling the water to the local villagers.

The third project in the Amed area, I have already mentioned, is the disaster at Canguang. It is the failed Jimbaran project done with Australian money. We learned that water from the springs around Banjar Bangle once supplied the three large concrete tanks along the road. The two top tanks are not usable and the top tank is overgrown with vines. The upper most concrete tank has a defective floor and cannot be repaired. The second concrete tank is the where the pipes have been cut and is not used. The third tank is workable, but I do not know the source of the water. I suspect it is from the springs around Bangle. It is the system that I showed to Ron Dixon when he exclaimed, "You want to do this?" It was at that time that we immediately

changed our philosophy and our plans.

Perhaps a fourth project may be added to the category. And yet it is not a 'failed' system as are the others. An unexplained situation was at the small village of Bangle. There were many sources of water in this high mountain village. The town was literally ringed with a number of fresh water springs. We were examining a gravity fed tank system in this village when I noticed a small Christian church which seemed to be abandoned. It was a small western style, brown building built of wood with a prominent cross on the front. It stood out because it sort of looked out of place in this small village. I inquired as to the number of Christians in the area. We were told that there were absolutely no Christian people who lived in the area. But the water system was built some time ago by a Christian organization. We never found out the answer to the mystery of why the brown wooden building was built and what it is used for today. But the water system still works. And it works rather well.

At a later time we had quite an adventure. We were told that the government had built a 'road' from the saddle of Mount Lampuyung to the coastal road. This was more than eight miles of construction. I was with three of the Balinese Rotaractors when we decided to take this new road. It would save us plenty of time compared with our other alternative which was to go back to the road and then around the mountain to desa Culik and then to the coastal road. Well, it was a bad mistake. We walked back to the car and started down the mountain on the new road. It was too steep for us to turn around. We could not

back up nor turn around on the road because of the steepness. The car was a rear drive Toyota and the tires just spun when Wayan put the car in reverse. The only solution was to keep going down. We built a total of three rock bridges to traverse the river ravines we encountered. It was an engineering nightmare making stone tracks only wide enough for the tires of the car. It was a testament to Wayan Sudana's fine driving that we finally made it down the mountain. Our friends were a bit concerned for us as we arrived at the hotel on the beach. We finally arrived but we were late, hungry, muddy, and tired.

The key to making this work were the Rotaractors from Ubud. They are a group of young people between the ages of 18 and 35. The Rotaract Club in Ubud is a dynamic and hard-working bunch of people. Danielle's job was to contact their sponsor, an American ex-patriot named John Kramer. He had lived in Bali for some time and, as a Rotarian, was the sponsor to the Rotaract Club. They all spoke Indonesian and, more importantly, spoke the three different languages of the Balinese. And they all have young, strong legs. Since the national language they call *Bahasa Indonesia* was taught in school and the majority of the mountain people had little or no schooling and only spoke a different dialect of Balinese, we western people had a problem in communicating with them. The Rotaractors had some difficulty with their rather strange dialect of Balinese and they struggled somewhat. And a good understanding starts with good communication. So the Rotaractors were essential to our efforts. Danielle was able to contact John and give a presentation at one of the Rotaract meetings. They enthusiastically endorsed our plans and were willing to help in any way they could.



THE TRAILS ARE TREACHEROUS.

So our first attempts at solving the water problem was to build in 6 areas to help 4 villages. These were the villages of Gulinten, Gitgit, Canguang, and Batukeseni. This was done with Rotary Matching Grant Number 66031 and with funding The Rotary Foundation and by Rotary clubs in Bali Ubud, a Rotary club in India, my club in Colorado Springs, and by a club in Kansas. I took the motor bike to Kadek Arie's store where his wife gave me the Rupiah in a garbage bag. Now where to store all this money? The villages we had chosen are four of the ten hamlets under the main village of Desa Bunutan. They were all gravity feed systems using springs that were high in the hills and they ran all year long. We had checked the flow rate of each of the springs during the end of the dry season because many of the springs do not flow all the year around. We wanted to select only the larger springs.

I constantly worried about the safety of the people working on the first several projects, especially the 21 Rotaractors who participated in the first several projects. I was concerned that one of them would get injured on the treacherous trails. And there is no health facilities for many miles. A broken leg or a badly sprained ankle on these mountains would be the cause of much concern. For the first six systems we had more than a thousand people working on the water projects. Not at the same time of course. During the course of those seven months we had one incident. A man carrying a 50 kilo (110 pounds) sack of cement slipped on the trail and went over the cliff. He was caught by the trees or shrubbery on the way down. He was bruised and banged up when he was pulled to the top. But all we lost was a sack of cement. That was the only potentially serious accident that I am aware of in all our projects.

It is strange that sometimes one just loses their ability to hike. Ping lost his confidence one time on the way down from Banjar Canguang. It had rained and the trail was muddy and slippery. Leaves from the bamboo clumps had fallen and made the path rather slippery. Ping had slipped and fell near the edge of a large ravine. His confidence was gone. It is not unlike taking a bad fall when one is snow skiing. One loses his confidence and instantly becomes a bad skier. He gingerly made his way around the crevices and ravines. He had lost all his confidence and his ability to hop from rock to rock. He was very glad to see the bottom of the mountain.

Ron and I would take six Rotaractors each weekend to work on the projects. A Balinese man who owns the Puri Wirata

hotel in Bunutan had given us rooms for the driver's rate at \$15.00 per night as his contribution to the project. We would typically take three rooms. And beautiful air conditioned rooms they were. Ron and I in one, the Rotaract boys in the second, and the girls in the third. This rate also included breakfast for everyone. Ron and I would share the total cost which, including all our meals, would total about \$100.00 for the entire weekend. It also included a tank of gas for the trip. This is for 8 people! We all had a great time staying and working in Amed for the weekend. These young people were a delight to be with.

Once while we were hiking to the village of Canguang we had to come from the saddle of Mount Lampuyung. The village was not accessible from the coastal road and we had to drive around the mountain to approach it from the west. I had taken note of the three temples on the mountain as we hiked up and over the saddle of the mountain. Accordingly I asked one of the Rotaractors, who was a lecturer of religion at a university in Denpasar, what was the significance of these temples at Lampuyung. He said, "Well, that is a long story". Well, we were going to be walking all day, and I told him so. Kaler talked about the importance of these temples to the Balinese people for a long, long time.

One time Ron and I were climbing (with several hundred others) to the high temple on Lampuyung. It was the day before or the day after Galungan. In any event, we were walking on the many and very uneven stairs. Before us was an old man walking with a cane. Beside him was a man, who turned out to be his son. I had asked Ron in a subtle voice, "I wonder how old



COLLECTING WATER IS A HOLE IN THE GROUND.

that man is? The man beside him turned around and in perfect English said, “My father is 95 years old”. I felt that if that old man can make it, so can I.

A couple of stories that tell of the worth of these interesting people. On our second climb to the first water project at Gulinten, one of the Rotaractors named Made Lesoh showed up with a gigantic duffle bag. I could barely carry my camera and water bottle to this place. Lesoh was asked what was in the bag. He said, “Clothes for the children. They have no clothes because they are poor. We solicited donations of children’s clothing in Ubud. This is the result.” I had thought that the reason the children had no clothes was because they grew so fast. I didn’t realize that the people were too poor to afford clothes. Of the 21 Rotaractors who participated in the first projects we were to hear many times in many ways them saying something like,

“We are so lucky to live in Ubud”. We would introduce them to the people of Amed as the future leaders of Bali. And we know that is a true statement. Of that, I am convinced

But all was not just work. One weekend Ron and I had taken a group of Rotaractors and were staying at Puri Wirata Hotel. The young Belgian man who was the dive master at the hotel took a ‘verrry’ romantic interest in one of the Rotaractor women. We were all sitting around talking when he leaned over and asked her if she would like to go snorkeling with him in the morning. Instantly all hands went up. He was stuck with taking all eight of us snorkeling. He was gracious about the whole thing and we all had a grand time the next day diving in the coral reefs near the hotel with the dive master as our guide.

From time to time we have gone deep sea fishing with one of the local village chiefs. We usually fish for red snapper, mackerel, and tuna but the chief would take almost anything home to eat. It is a very relaxing time being with him in his sailing dug-out canoe. Sometimes I envy the fishermen. But then it is a hard and dangerous life that they live. Usually they get up before dawn, sail their canoes out of sight of land, and are gone for days at a time. Of course this depends on the catch. One time Danielle and I were relaxing on the beach and a young boy ran by and said, “*Ikan besar, banyak ikan*” which means ‘big fish, many fish’. Well, we trotted after him down the beach a ways and a fisherman had 13 large tuna that he had just sold to the fish monger. The smallest of the tuna weighed 43 kilos, or about 95 pounds. How did he get them all in his *jakung*? I suspect that he towed them behind his *jakung* and made for the shore as fast

as he could. I am sure that he knew nothing of Hemingway's the Old Man and the Sea. He got the equivalent of about US \$137.00 for his effort. The hotel kitchen bought a half of one of the smaller ones, and we had fresh tuna for a couple of days. It was delicious.

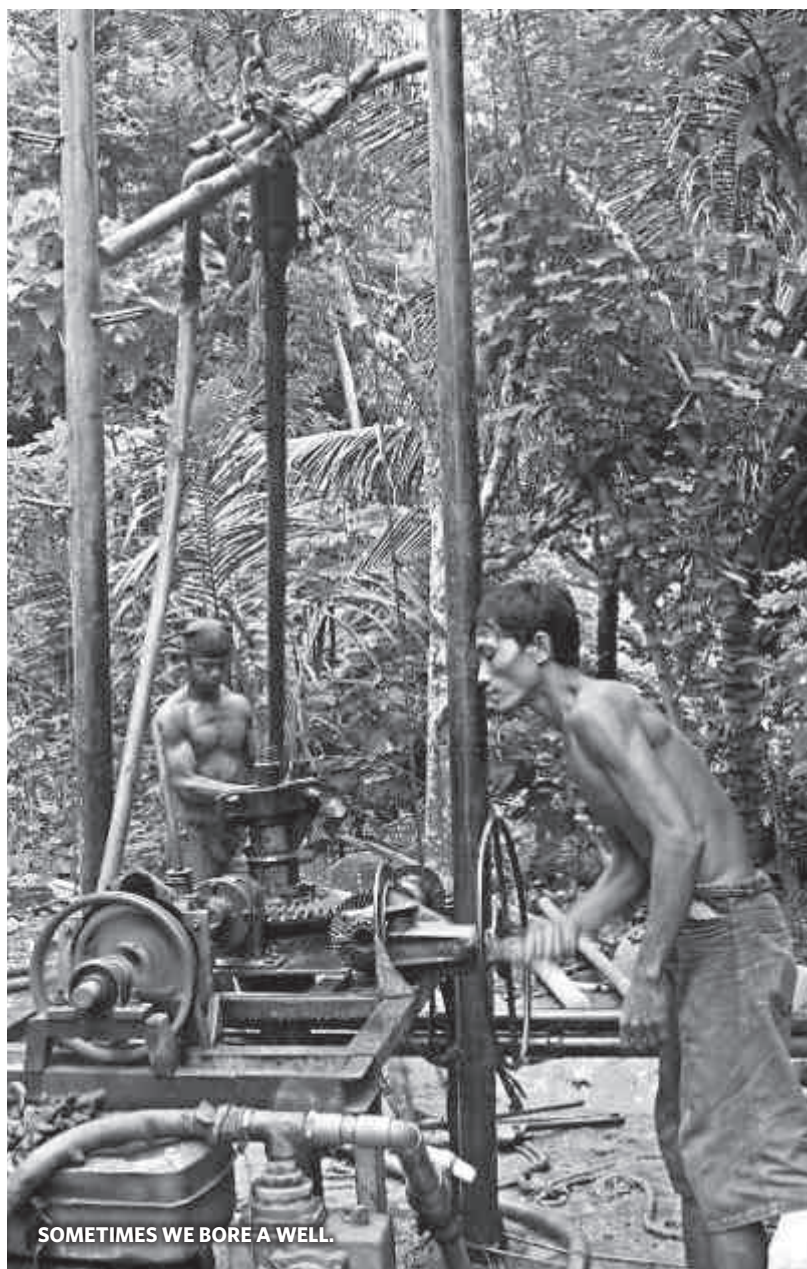
At a different time we had a bit of a problem with the top tank of the Batukeseni system. It was designed to be a 5 x 4 x 2 ½ meter holding tank. It was the largest tank we had built at that time. Pak Suka, the owner of the store that supplied us with building materials was an expert at building hotel swimming pools. We had a small problem of tying in the floor of the tank to the sides with rebar. We needed his expertise and advice. But he was reluctant to make the strenuous climb. The Rotaractors actually shamed him into going by declaring that if this old man, meaning me, can do it so can he. So he bought some tennis shoes and began the hike with us. The Rotaractors are all young people and have a lot of fun. It is a pleasure to be with them. One of the Rotaractors, a young woman named Nidya, asked Pak Suka, "How many children do you have?" He answered, "None. My wife had the children". Without hesitation Nidya asked him, "How many of your wife's children are yours?" I think that we laughed the whole way to the top of the mountain.

Just to keep you in the loop. This is a short report on a water project near our efforts. We were a little turned off by politics of this one. Our efforts have really caught the attention of the Habitat for Humanity folks. I was not aware that they were involved with water projects. On 17 August, which is the Indonesian Independence Day or *Hari Raya Merdeka*, Danielle, Ping, and I

went to Datah village to see a proposed water project site. Desa Datah is a large village. It has 14 banjars (sub-villages) and is the wealthiest village in the area. On the way to the *Kepala Desa's* house we passed a large government water project done with money from Japan which is piping water from a reservoir from the wet side of the mountain range. We were met by the *Perbekel (Kepala Desa)* and his staff and some of his family. Ping talked to him about our previous projects and why we were here to see the new project site to be done by Habitat for Humanity and BATI. BATI is the Bali Appropriate Technology Institute run by a water engineer genius named Rus Alit. He is a Balinese chap who is currently working a project in Uganda, Africa. I have been to his home in Tabanan and seen his work.

We explained that the RC Bali Ubud Sunset had been asked to contribute to the project and we were here to see what it entailed. They seemed to be suspicious of our motives. The object of the project is to move water from the very clean river which runs through the village. And they would show us an existing project which BATI intends to replicate. The *Perbekel* insisted that Danielle could not climb down to the river, as it was too steep. So Ping and I followed a staff person to the site. It was about a 30 minute climb (very steep) down to the river. The operative mechanism of the system is the clever ram pumps (valves) that convert high volume low pressure water to low volume high pressure streams of water. These move the river water to a tank up the cliff. But we have no rivers in the area of our projects. Ping was fascinated by the pumps and wants to come back when Rus Alit begins work so he can see how they really work. At first it brings to mind a 'perpetual motion'

machine. Ram pumps have been around for some time which takes a bit of knowledge of hydraulics. Very clever engineering, but we declined.



SOMETIMES WE BORE A WELL.

Projects

Our projects cost between \$5,500 and \$12,000 for each village. The amount varies widely depending on whether or not we have to dig a well. To drill a water well means that the water must be pumped up to the village. There are at least three problems with this approach. It is not possible to get the drilling equipment to the villages because of a lack of roads and paths. Villagers have attempted to hand dig a well high in the mountains but they have not met with much success. It takes the villagers a long time with hand chisels to dig a well through stone. The hand dug wells that we have seen are dry, especially during the eight month dry season. The diggers of the wells are only able to work about 30 minutes when they work at some depth in the wells because of the lack of oxygen. And the people who dig the wells are special people whose specialty is in digging wells. The



second problem is that no one knows how deep to dig. Does an aquifer even exist high in the mountains? No hydrologist, that I am aware of, has ever been to these villages. The third problem with pumping water is the mechanical problem of sustainability. Pumps and motors break down sooner or later. If proper accounts are not kept for routine maintenance they will break down sooner. And when they eventually break down the money is simply not available and the project goes silent. Whether the motors are electric, gas, or diesel powered it is still a problem.

The first village where we placed a pump and gasoline motors was in the village of Batukeseni. The members of the village that lived near the coastal road are mostly fishermen. The village council had come up with a scheme of a tax on the number of fish that were caught. Five rupiah per fish caught meant that

less than one U.S. cent was collected for every 20 fish that were caught. To reiterate, that is less than a US penny for every 20 fish. That is a lot of fish to get a small amount of money. The fund was kept by the village head. This was to pay for the gas and to maintain the system. So far this system is working. But it is contingent on the honesty of the current village head.

There are a number of fresh water springs high in the mountains. Perhaps someone can explain their existence to us. It must have something to do with the volcanic structure of the geology. Many are large enough to provide fresh water throughout the year. The people have been tapping existing springs for hundreds of years. Tapping the existing springs and using gravity to distribute the water down the mountains is the easiest way to go.

Collecting rain water is practiced in many areas. But this is an unsanitary solution. The birds, insects, and rats play in the grass roofs all throughout the dry season. When it does rain, the water is filtered through all of this detritus. Then it is stored in rain barrels that are actually burned out oil drums, ceramic jugs, or in holes dug in the ground. The stored water is stagnant and full of organic materiel. It is a breeding ground for mosquitoes and other organisms. It is really nasty stuff and is simply not fit for human consumption. Diarrhea is deadly, especially in young children. Intestinal parasites and worms are always a problem. Skin diseases are a common sight.

The preferred method is to locate some usable springs. Once they are located, we can measure the flow rates during the dry



SMALL TANK BEGINNING ITS WAY UP THE HILL.

season. The water is stopped by a small dam downhill from the spring and then piped to a large collecting tank. The tank can be made of reinforced concrete, either round or square. The biggest tank we built was about 7,000 gallons or 30 cubic meters. From there, several distribution tanks are connected by plastic pipes. These tanks are usually plastic tanks of 1,100 liters. It is difficult to hand carry the plastic tanks to the villages which are larger than the standard 1,100 liter tank. This is why the top tanks are made of cement with rebar reinforced floors and corners. The simple formula of one distribution tank for every ten families means that about 100 people share the same tank. But we have found that the women, who collect the water, like to gather together at the source, wash clothes, bathe, and discuss the current events of the day. This is an important cultural mechanism that would be lost if water were piped to individual houses.



TOP DISTRIBUTION TANK.

Some time ago after a Rotary Presentation, I was asked if we tested the water. Well, we have not tested neither the fresh water springs nor the wells near the coastal road. It is like when you are giving a sandwich to a starving person and first inquire about the expiration date of the mayonnaise. There is a laboratory in Denpasar that can test the water, but we have never been able to insure that it gets there in the requisite 24 hours. By the time we could get the water down the mountain and transport it to the laboratory, it would be too late. Denpasar is a good four hours from Amed by car. One would really have to hustle to bring the sample of water from the top of the mountain and to get it to Denpasar in a timely fashion. Besides, I have drunk the water from all of the springs we use and have tasted the water from the wells. There are ways that we could test the water, but have never done so.

What are we doing to the aquifer? Does such an aquifer exist? What are the hotels and private villas doing to the water supply when they dig a well? Is there enough water for everyone? Why do springs seemingly come from only the high parts of the hills? Are the springs and the aquifer related? Why is there no salt intrusion by the coast when the drilled well is below sea level? Will there be salt intrusion if we use the aquifer? Why does the level of the sea remain the same? What are the western villas and the hotels doing to the aquifer when they build large swimming pools? These are some of the questions to be answered by a qualified hydrologist. And that is why we desperately need one.

We have examined projects in other areas but some have been rejected because of personality reasons or that other areas were deemed to be more in need. One of the villages we looked at required a new pump to an existing system. The top tank was located in the village chief's land. Now, that is usually not a problem. But we found out that he was selling the water to the villagers. That is a problem. Most of the rejections have been because of sustainability issues. We require that a plan is included for the maintenance, repair, and replacement of the various components of the entire system. It is essential that the projects be sustainable by and with the people for whom the project benefits.

There are many years of work and more villages that need help with their water problems. There are at least six more sub-villages that we are considering, dependent on future funding. These villages all have a significant problem with their drinking

and cooking water. All require long walks to collect water. And they are all very poor villages. The village leadership is coming to us. They ask, "When is it my turn?" At one time we were discussing a water project with one of the village chiefs. We had come across a thorny problem, were discussing it, and he said, "You know, just like you did at Lipah." Now, how did he know about what we did at Lipah? It is more than ten miles and several ravines away. These people are simply amazing. They seem to know everything that is going on.

Each project is relatively inexpensive. We have found that small projects like this are easier to manage and to supervise. Also, we vowed to operate under the radar, so to speak. Small projects do not attract sticky fingers. The village projects, done one at a time, is relatively small and costs little. Of course we notify the proper authorities and invite them to the completion ceremonies. Each village chief is told to appropriately notify the civilian chain of command, the national police, and the army which is responsible for internal security.

We are definitely concerned with sustainability. One study shows that more than 85 per cent of all the world's water projects will fail in the first few years. This is a huge problem. Most often the people are worse off than before. We help the people with their plan and once it is approved we will purchase and deliver the materiel. The villagers must carry the materiel to the construction sites and do all of the labor and construction. This is called, *gotong royong*, or working together. When the village council approves a project the entire population is required to help. We are simply helping the people to solve

their own problem. Another problem is that it is very rocky in the mountains. And this means that we are unable to bury the pipe in the ground. This means that the plastic pipes lay on the ground and are exposed to the ravages of the sun. So the pipes have a limited life span. We hope to get about 10 or more years out of the pipes before they get brittle, deteriorate, and must be replaced. Our first projects are approaching the 10 year limit, but they are all working very well. In many projects there is a “usage” fee from each family compound (5 to 10 people) of between the equivalent of 25 cents and 1 dollar per month per family. This fund is used for maintenance, repair of the system, and for gasoline or electricity for the pumps. It seems to work well. All of our finished projects are working well. The key to the success is the ‘buy-in’, ownership, and total involvement of the people. As mentioned before, the young people in the Rotaractor Club were essential to a good communication with the people. The people would not believe it if we told them that two of the Rotaractors were from the royal families.

Economic Development

All of our efforts at stimulating some form of economic development have had less than desirable outcomes. Ron Dixon, a Canadian, who was at the time the President of the Rotary Club of Bali Ubud, came up with the idea of a ten year plan for rural development for the Amed area. It was a wonderful idea that allowed various groups or clubs to adopt a small area of the plan. No short term solutions were allowed but it did allow various groups to take a small portion of the plan and execute it. All efforts were to be sustainable and must empower the local people. The plan included water and sanitation, economic and community development, public health (both children and maternal health), and basic education (and literacy). It recognized that water provision was not the sole answer to all of their problems but it was the keystone. First we had to

help with the water problem. Next was a stimulus program for economic opportunity. We have tried to introduce a better strain of corn for their main subsistence crop. Ron did find a Balinese agronomist who was very interested in our project. But he didn't like to go to the effort to hike the paths to these small hamlets. He did bring an improved seed for a corn but I think that it was planted too late in the wet season. Perhaps it needed more water than the kind that they had used for centuries. In any event it withered and died. It was also a hybrid seed and not one that the people were able to gather seed corn from year to year. It could not be planted a second time. The corn project was not a success.

We have explored many alternatives to economic development. Among these are improvements as to how to plow the ground and how to plant corn and other crops. David Lock is a retired Australian farmer who lives in Bali part time. He is a soils expert (although he does not like the word). We have taken him to the project area and he was not surprised that the farmers plow the soil during the dry season and turn it over to catch the rain water during the beginning of the wet season. It is also the reason that they maintain the terraced plots. It keeps the top soil from disappearing down the mountain. The way that they plow the fields eliminates the various nutrients and kills the various insects and worms in the top soil. It is far better to plant the seeds without plowing by digging a small hole for each seed and thereby preserving the nutrients. He showed us the difference between the quality of the soil both in the planted and un-farmed areas. He dug up part of the earth in each location with his keys. The farmed soil was powdery

to look at and the un-farmed soil was granular and healthier looking. Even I could see the difference. But to get the farmers to buy into his ideas is problematic.

We have also explored various alternatives to their basic corn crop. These include Vertiver grass, sorghum, hops, and etc. The problem seems to be that the families cannot eat these crops even though they would be excellent cash crops. Another idea is of a particular company that plants a lot of bamboo. The people of Bali need bamboo for construction and for buildings, not to mention the *penjor* which every household and every business in Bali makes before *Galungan* which occurs every 210 days. They now import much of their bamboo from Java and other places. This is an exciting idea that needs more research. A man named Arcana, who is one of the aforementioned Rotaractors, is talking to Ping about this problem. Ping has identified three plots of land that are possibilities. They are all government land or belong to the temples. The idea is that in five years the villagers can selectively harvest the bamboo and Arcana's company will buy it all. There exists a needy market for construction bamboo. This is a crop that takes little to manage it, the villagers can harvest a crop each year, and will offer some economic advantage to the people. It is an on-going project and is one attempt at providing an economic stimulus for these people.

Another project that had a lot of promise was the egg laying enterprise. The idea was a 'pay it forward' scheme. A list of the 13 poorest families in one of the villages was prepared. The idea was to help the first three families with chickens, a few roosters,

and a hen house. When they became stable and profitable, they were to assist another couple of families with chicks and hen houses. A distribution system was developed to market the eggs. The first family selected was headed by a man who was ill and could not work. The family lived near the coastal road but was very poor. The father had a bad hip from some injury and he was constantly coughing. A trip to the hospital did not show that he had tuberculosis, even after an x-ray was taken. But his breathing problems did not improve. The family had a 13 year old girl who had decided that the best solution was for her was to quit school, go to the capital city, find work, and send the money home. What could a semi-literate 13 year old girl do in a big city? She needed to stay in her home village and to stay in school. Her family was an easy choice for the first family to be helped. Ron Dixon and Yacintha Daisi, an Indonesian woman who was also a member of the RC Bali Ubud, were the people most responsible for the chicken operation. A large hen house was constructed. Chicken feed was provided. 50 laying hens and three roosters took residence in the family compound. Notebooks were provided to record the egg laying and selling. But what happens when you give 50 chickens to a group of hungry people? The chickens slowly went away.

The family did have a goat for some reason. Ron asked the mother of the family if she had ever drank the goat's milk. He said that it was tasty and nutritious. She had the look of utter disbelief on her face. She looked him as if he was out of his mind. As if he were suggesting to her to milk a mouse and feed the stuff to her family. It did not help when I offered that when I was very young we had a milking nanny goat for my younger

brother who was allergic to cow's milk products. I learned the difference of how one milks a goat versus a cow. I could teach them how to milk a goat. She looked at me with the same look of disbelief. The Balinese do not drink milk of any kind. And they have no dairy cattle. Only the small and beautiful cattle that, I am told, are more related to deer and are not really bovine. Milk and milk products including cheese and cottage cheese are unknown to them. Perhaps that is why it would be difficult for them to learn the art of making of goat cheese even if the water problem could be solved.

The second family lived high up the mountain. They, too, were very poor and had a young son who was mentally deficient. The grandmother, whom I am guessing was in her mid-70's, was asked when the last time that she had eaten a bowl of rice. She said that she had never eaten rice. We thought that everyone in Bali eats rice. But they cannot grow rice in this area because it is too dry. The Rotaractors who helped us with this family noticed that they, as many who live in these high hills, were very shy and spoke a different dialect of Balinese which was very difficult for the Rotaractors to understand.

It was in this same village that the Rotaractors began to speak amongst themselves about the Lost Slaves from Lombok. The story goes like this. A long time ago, at least 150 years ago, the Dutch colonial government decided that slavery was wrong. Accordingly they forced the Regent of Lombok, which is an island to the east of Bali, to get rid of his Balinese slaves. This he did. But where did they go? No one knows. The Rotaractors had the idea that maybe we had just found these lost slaves. I

had some continuing thoughts about selling the story to the Natural Geographic magazine or to the Discovery Channel. We would have a lot of money to continue our work with these people. Ron and Daisi arranged for a linguistics professor and a graduate student from the Linguistics Department at Gajah Mada University in Jogjakarta in Java to come to the location to listen to the people here and to determine if the Rotaractors were correct. Java is the island to the west of Bali. It is the island that the capital, Jakarta, is on and is said to be the most densely populated place on earth. The people in this village were difficult to understand and spoke a language that was unfamiliar to the Rotaractors who are also native Balinese. The professor and the graduate student, a doctoral student, came to Bali. The student was a young Japanese girl who was getting her PhD in Linguistics at the *Universitas Gajah Mada*. She was not told that it would be a bit of a hike to get to the village. She was not dressed for nor prepared for the climb. In fact she was wearing a frilly dress and, of course, a broad brimmed floppy hat that all the Japanese like to wear. But she was a very good sport about the adventure and did not complain about the hike. The two experts spoke with several people in the village, including the old woman who told us she had never eaten rice, but they concluded that the mountain people had been isolated for so long that they had simply made words for everyday things that made for the difficulty in understanding the language. They were not descendants from the Lost Slaves from Lombok. Our ideas about solving an old mystery and making some money for our projects simply went away.

We had better luck finding the reason for the lost chickens that

were given to the families. There is a prohibition in Indonesia against transporting chickens (and/or fowl) across district boundaries. It has something to do with the Asian bird flu epidemic. Again we were to learn what happens when you give chickens to hungry people. The other lesson we learned was that these people had no education, had never been to any school, and had no idea about how to run a business. We would provide them with a book to record the production of the eggs, return a week later to deliver some chicken feed, and to ask them about any problems. When we asked for the production book they would ask, “What book?” We forgot that numbers in a book was just a mystery to them. The numbers of chicken eggs was never recorded and, besides, the chickens simply went away.

Health and Disease

We started the water projects because these rural people had no access to clean, fresh drinking water. But there are health issues associated with a lack of drinking and cooking water. As previously mentioned, the mountain people have little or no access to health care facilities. The governor of Bali had decreed that free health care was available to all (the JKBM insurance for the poor). But this means one must present a National Identity Card when checking in to a government health clinic, (*puskesmas*), or hospital, (*rumah sakit*). A significant portion of the people who live in this area do not have national identity cards because they think they must show a birth certificate when they apply for a KTP (governmental identity card). They must simply show their *kartu keluarga* or family card, if they have one. And without a KTP there is consequently no clinic or

hospital. At the time of birth a birth certificate is easy to obtain and very cheap. That is if one were born in a hospital. But these people were not born in a hospital. To get a birth certificate at a later date is complicated and expensive. For chronic conditions one may be admitted to a government hospital without an identity card. But first one must get a letter of proof from the sub-village chief and then get a letter of proof from the main village chief. In emergency or acute situations it requires one to get down from the mountain and then to find transportation to the nearest facility near the main road which may be a long way away. And you must pay for emergency services. This system makes it nearly impossible for local people to take advantage of modern medicine. The logistics are just too insurmountable. And it does not cover emergency expenses. A growing number of people have the BPJS system of government insurance for which one must pay one of three levels. Level One is Rupiah 32,000, Level Two is Rupiah 51,000, and Level Three is Rupiah 80,000 per month per person. The difference in the levels are the quality of the room and how many other patients share the same room. (All three are between US \$3.50 and \$7.50 per person per month). But the limiting factor is the shortage of family income to cover the cost of the insurance. There is talk that soon (maybe in a year or so) every person will be required to have the BPJS insurance.

One day Danielle and I were in the restaurant of one of the local tourist hotels in Amed. We met an amazing Australian couple and, of course, the conversation turned to what we were doing with the water projects. Ray and Sue Bishop were most interested to help. We talked about water, sanitation, education,

child mortality, women's health, and economic opportunity. They were eager to get involved.

We had taken them to the village chief's house at Batukeseni and there met his 17 year old niece who had had what the villagers described as polio. Ketut was a clever and attractive girl. She was told that the local grade school had passed the message that she could not go to school because she could not walk. She simply solved the problem of her education by doing the homework of those children who did go to school. Ray and Sue decided that she needed a wheel chair. We talked about sending the money from Australia to us when we returned to Colorado. We would then bring the money to Bali, procure a wheel chair, and give it to Ketut. Sue called Danielle the day before they were to return to Australia and said, "It got too complicated. So we just bought a wheel chair. We can get it to a hotel half way from Ubud to Amed. Can you pick it up there and take it to Ketut?" It was a simple solution to a problem that Ray and Sue were to use many times, in many ways. I love the direct approach.

Ketut and her family were very happy with the wheel chair. But we knew of a community of handicapped people in Tampaksiring where she could live and continue her education. We spoke to her father about the opportunity and he flatly refused to allow us to, as he said, "To steal his daughter". We got a man from Sweden, who was a founding member of the board at *Senang Hati* (Happy Heart) to provide us with brochures in Indonesian of their NGO. These we gave to the family. We encouraged the father, with a whole lot of help, to just check it

out. We would send a car for them to go to Tampaksiring to see the operation. He finally agreed to just look. The day arrived, the car was arranged, and we were to meet them at the facility. The father, mother, brother, uncle, and Ketut arrived somewhat late. They had never been in a car before and all got car sick. Everyone was the color of greenish gray. But they had a great time and liked the facility. They met the managers of the *yayasan* and liked what they saw and the people who lived there. Ketut is studying mathematics, English, and taking knitting lessons. It was a very happy outcome.

In early May 2012 I wrote to Jan Holtschmidt in Sweden.

“Hello Jan and family,
Just to inform you about the 9 year anniversary party for *Yayasan Senang Hati* last Saturday. Very nice event. Good food and great entertainment. The young girl from Amed with polio that you helped to convince to stay in Tampaksiring is doing very well. She really likes it there and is learning how to knit, make greeting cards, and is learning English. She would not let go of Danielle’s hand for a long time (or was it the other way around?) Anyway, she was sure happy to see us.

Ibu Putu did a great job. All the volunteers look so young!

Ketut (from Amed) and two other girls did the “wheel chair dance” and it was beautiful. They were all dressed alike with dancing makeup and everything.

Many fine performances by almost everyone. They finished with a “drum circle” led by the Balinese chap who teaches drumming. It got everyone in the audience on their feet.

Wish you could have been there. It was a great affair. Do you have plans to return to Bali?
Salam,”

Over the past couple of years, Ray and Sue have established a Rotary organization called *Rumah Sehat* (which means healthy house) and they are doing an amazing job with the health problems. They have developed four or more health care facilities in the area with funds from his Rotary Club in Australia and with private donations. Each health day they have several doctors, dentists, pharmacists, and nurses in attendance. They work in conjunction with the *puskesmas* in Culik, not in competition with it. These are complicated and expensive undertakings that have involved the mobile eye clinic for eye problems, mostly cataracts, from the John Fawcett Foundation. The foundation only does cataract surgery on adults as the children require a general anesthetic which is only done in the hospital. Ray and Sue have also gotten a mobile clinic bus for breast exams and pap smears. They also do several dental screenings with a number of dentists to pull teeth and teach about oral hygiene. They also have medical clinics with several doctors to treat various problems and pharmacists to dispense medications. Most are skin diseases such as scabies which can be a problem of poor personal hygiene due to a lack of water. They are doing great work. Ping is doing a survey of all of the people

in the area, inquiring about their health status. So everything is related. Water is not the solution to all of their problems, but it is the key to getting started.

Another idea is the providing of feminine health items. A female member of the Rotary Club asked what menstruating women in this area now use. I am the wrong gender to find out but she (the member of the RC Bali Ubud Sunset) talked about this problem at some length. There is a web site devoted to a woman's solution. It is a simple solution and does not cost much. She was recently asked by the Sumba project people for help in addressing the needs of young women and girls in this very basic hygiene issue. The girls are very poor and live remotely, and have no access to feminine hygiene products at all. You can imagine the conditions in which they endure their periods. In researching this she encountered what seems to be an excellent US-based NGO addressing this issue in Africa. Its web site is www.daysforgirls.org. It bears investigating. Now if we can get a female Rotarian involved?

I created a small fire storm the other day before a Rotary club meeting. We were discussing HIV and poliomyelitis. I made the comment that if you want to see the ravages of polio you should come with us to the water projects area. A woman who has been involved with the vaccine deliveries said, "But there is no polio in Bali. Indonesia is free of polio. There haven't been any new cases for a long time." I told them the story of the niece of one of the village chiefs for whom we secured a wheel chair. She contracted the disease when she was three years old. She was 17 years old at that time and because she could not walk,

she was not welcome at the school. Her parents lived near the coastal road. Because she was barred from attending the school she solved the learning problem by doing all of the children's home work. Ray and Sue Bishop finally got her the wheel chair. She was but one of the young victims, which the villagers are convinced is polio. There are several children of teenage years and less with symptoms that look like the ravages of polio.

Catherine Wheeler immediately sent an email to Doctor Steve Wignall who is an epidemiologist. Both are members of the Bali Ubud Sunset Rotary Club. We are in the process of having our friends in this area make a list of all of the cases. Doctor Wignall is convinced that it may be a polio look alike such as Japanese Encephalitis (JE). He, too, is of the belief that no polio exists in Indonesia. Our friend, Ping, from the area sent some photos of the afflicted children. It is difficult for a western person to see the problems because of the people's propensity to hide their afflicted. They can hide their children and adults with medical problems but they cannot hide the way they live. Perhaps what the people refer to as polio is in fact some other childhood look-alike disease which causes some neurological disorder.

On Friday, 31 October 2014 Sterling Nelson and I went to the project areas. She is a psycho-therapist by training. We met Ping at his new house then went to two of the ongoing projects to check their progress. Following the project checks we caught up with two children who the villagers say have had polio. The first was a 15 year old boy who is house bound in the village of Canguang. His name is Made. He showed us that he can walk

a little bit. He was a bit unsteady on his feet and grabbed the trunk of a tree when he could. His condition started from the time he was two years old. He had a very flat philtrum which I am led to believe is more indicative of fetal alcohol syndrome. It is unlikely that he ever had poliomyelitis. He did exhibit the dull look of FAS. His mother indicated that it all started with a high fever when he was very young.

The second child was a girl, named Armini, also 15 years old, who seemed very bright. She was attending the only junior high school in the area. Her teachers reported that she got good grades. Her problems started two years ago. She, too, reported that her problems started with a high fever. Both she and her younger brother, aged 10 years, have and had the same problem. She was ambulatory but walked with a pronounced limp. She reported that to attend the school she would walk about an hour each way to and from her home. There being no road to her house, she would come down the mountain on a treacherous trail every day. I forgot to inquire about her brother, if he was afflicted with the same disability, and if he attended school. She showed a lot of pluck and disappeared as soon as she was dismissed from the teacher's room.

Sterling Nelson took videos of both of the children and she got Cat Wheeler, Doctor Steve Wignall and others to see them. He consulted a neurologist in Jakarta and showed him the videos. Made and Armini's neurological problems may be a results of prior JE infection. He stated that they do not have active disease and vaccination will not help them. We need to do blood tests for them and others in the community to determine if JE is

likely - it can never be proven - and whether vaccination could protect other kids from such sequelae if it were made available. The problem is the national lab is out of reagents to do the test and they don't know when they will have. He will check with a veterinary virologist in Ubud if he can test. We also need to make arrangements to draw the blood and take it for testing. The Provincial Health Office has said they might help. There is no urgency for any of the blood work, etc. We will have to work through the government processes.

Basic Education and Literacy

We have little or no solutions for the problem of education. For a time, a Rotary Club in Canada funded what could be called 'transportation' for the fortunate children who attend the several primary schools and the one junior high school in this area. The scheme was to basically pay the drivers of small pick-up trucks to transport the children to and from the various schools. I joked about the numbers of children in each truck. They would load children in the back until the front wheels left the ground. Then they would put off one child and be off. It didn't happen that way but it was very comical to watch them load. The OSHA people (the Occupational and Safety Health Act) would have something to say about the safety of this operation. Shucks, they would have something to say about every aspect of doing anything in Bali. I have often wondered what they

would do if they watched the construction of a western hotel. The transportation system happened until the money ran out. When we were providing transport we would initially give the money to the village chief. But we finally settled on our friend Ping to pay the drivers directly as this was an incentive for some of the village chiefs to get some money. The drivers were not getting paid enough and the children suffered.

Another plan was to bring the education to the children. In the rural part of the US, I recall my grandparents talking about having a school teacher living with them who taught in a one room school with all grades in the same group. The idea was to bring the teacher to the children. Accordingly, we found out that the Indonesian government had an A B C system for their rural areas. 'A' was for grade school, 'B' was for junior high school, and 'C' was for senior high school. The government would provide the books and the tests. Two men were solicited from the university in Denpasar who were finishing their teaching certificate. They climbed one time to a village high on the hills behind Amed. But it was too much like work. We never saw them again. The problem with this system was that it required a qualified teacher to hike up to the villages once a month or so and to check the homework of the children. Finding a qualified teacher to do this was not possible. And then the parents, who had no education, could not be counted on to supervise their children. They seemed to say, "Why should my child go to school? I didn't, my parents didn't, and besides I need them to help on the farm". For these reasons, and more, we have no solution to the education problem as of yet. The education portion and the economic development portion have

been put on hold and there are no plans to revive them.

Education must start with the youngsters. At the various elementary schools the Rotaractors have done a number of 'mobile libraries'. These were funded for the most part by a Canadian woman named Diane Parker and her Canadian Rotary Club who provided several books with soft covers which were enthusiastically received by the young people. It is a true joy to see the smiling faces of the children. And they love the attention and devour the books. The books are collected after the children have read them and stored for the next Rotaractor effort. The mobile libraries are a very successful effort which they have done many times in many locations including the water project area in Amed.

We built a library at the only elementary school in Banjar Batukeseni. It was in a room that was designated as a library but since they had no librarian the room was used as a junk room. They had plenty of books at that elementary school but many of the books, especially on chemistry and physics, were for high school students. When it was suggested to the headmaster that he contact the high school in Culik and donate some of the books, he said, "But I am accountable for these books. When they come to inspect, all of the books must be here". Therefore none of the books had ever been unpacked. Never mind the simple fact that they are not appropriate for elementary students. The headmaster could not arrange a swap with the high school. The tile floor and the shelves were donated by a member of the RC Bali Ubud. We then placed shelves in the library and sorted the books. The high school books were

all placed in one cabinet. The Rotaractors and Rotarians spent several hours making the room into a real library. They still have no librarian.

Data Base

A marvelous idea was proposed by one of the members of the Sunset Rotary Club. Rucina Balinger had proposed a big data base, one that we could add to from time to time. What was truly needed was a data base for Rotary Clubs or any NGO to use. Who had done what, where, how, and when and at what cost? It was a simple idea but very difficult to apply in actual practice. There was reluctance for some reason on the parts of many NGOs to provide data. Perhaps no accurate records were kept of past efforts. Perhaps several clubs had revolving leadership and did not keep data of older projects. All of these things mitigated towards abandoning this idea.

We approached the various village leaders to find the information and we found that they were reluctant to provide it. Perhaps

they were not in office when the project was done and had only cursory knowledge of it. Perhaps villagers thought that if they tell someone about another group's effort to help that the new organization would take their financial assistance to another location. We found that a project could be planned in the same area, doing the same thing and we would not be told of it. We did find that jealousy is a strong motivator. This is why we are often asked by some village chief or another, "When is my turn?" They literally line up for our projects. At every level, collecting the information reflects badly on the leadership. What village chief could be proud to say that 80% of the children have never seen the inside of a school room? Who would be proud to say that no roads of any kind lead to his hamlet? That the people do not use toilets in his village; that this the reason there are none? That health care and education are unavailable to the majority of his people? There exist no schools and no health clinics. That economic opportunity is lacking? This raises the questions of how much of what is available to whom and who says so? We must find a different way.

So we gave up on the idea of listing the NGO's including the various Rotary clubs and all levels of the government statistics. We choose instead to talk directly to the people about their needs. This is another example of another good idea that is impossible for us to orchestrate.

As a side light, our friend Ping is currently conducting a 'health and economic' survey of the people of this area. He does this by going to the families without the leaders and first checking the corn crop drying on the plaited bamboo walls of the houses

to determine if the family has enough to eat for the remaining year. Understandably he is not getting the same information that the various village chiefs report up the governmental chain of command. We must be careful with this information and treat it accordingly. Both actors have an agenda. I am amused at some governmental and some NGO information. For example how do they know that x number of people live on less than a dollar a day? How do they know of a crisis in drinking water? And this area has never seen an official. But frankly, I would trust Ping's information.

Colorado

We have settled into a routine of sorts. Ten months in Bali and back to the States for two months. This is after we returned to Colorado in January. Now, why January? There is limited fly fishing and besides that Danielle does not like the cold and snowy weather. On our return we traipsed through the snow drifts in or flip flops and short sleeved shirts. Luckily the woman who picked us up had borrowed some coats for us to wear. Cold? One quickly forgets how cold it can be if one lives most of the year in the tropics. So we decided to return to the States in the July and August time frame.

A few years ago we invited a Balinese man to stay with us in Colorado for six months. His name is Gede Dewi Putera, which means Son of the Great God. We were in Bali when he applied

for his visa. He had filled out the many pages of his application. I accompanied him to the US Consulate in Surabaya which is in Java. We had a nice flight of only thirty minutes on Garuda Airlines, during which the flight attendants served drinks and then served a box lunch. We then checked into our hotel for the next morning's meeting at the US Consulate. Our appointment was for 0830. While we were waiting outside for the doors to open, an Indonesian security officer asked me if I was an American. When I answered in the affirmative, he said, "Americans do not have to stand in line. Please go in that door." I explained to him that I was with my friend and would wait with him right here. The doors opened at 0930 for our appointment at 0830. No explanation was ever given for the delay of one hour. After several people at several different tables checked Putera's paperwork we got our interview with a US official. It was conducted behind a bullet proof glass and was done with microphones. This was not unlike visiting someone in prison. During our wait I noticed that about one third of the applicants were denied their tourist visa. The officials would say, "Your application is denied. Next." They were never given reason. These people had spent US \$100.00 for these few seconds. Putera came to the window and his tourist visa application was accepted. The American official, who I might add spoke excellent Indonesian, mentioned that we could pick up the paperwork at the Honorary Consulate in Bali in about two weeks. We left. I had a difficult time admitting to myself that this is American soil. It was not a good experience and, as an American, I was a bit embarrassed about many things. The hassle, the complete lack of security, the unexplained delay, the denial of several people's applications, and the bullet proof glass

that the official talked through were just a few. Just after we returned to Bali we learned that a bomb had gone off in Poso in central Sulawesi. The American response was to immediately close its embassy and all of its consulates. We were very lucky that this did not happen while we were in Java. We would have made the trip for nothing.

Putera was to arrive in Colorado in July. When I went to the Colorado Springs airport to pick him up, he was not on his scheduled flight from Los Angeles. Something had happened. I know that the counter agents are not permitted to give out information on specific passengers. So I called Danielle to explain the problem and decided to give the agent a try anyway. They were not busy at the ticket counter as I explained the problem. The agent was sympathetic, did some checking and then told me that my friend would be arriving at such and such a time. She gave me no indication of the airline, flight number or city of origin. I checked the arrival board and located the time. But this was a flight from Dallas! I went to the gate and when the plane arrived and Putera came off the plane. Boy, was he happy to see a friendly face. Seems he was delayed in Los Angeles for questioning by the authorities and it took so long that he missed his flight. Seems as if he fit the terrorist profile. Right age, right country of origin, and right gender.

Putera thoroughly enjoyed his time in the States. We went to Georgia to see my children by my first wife who had died. We went to visit their grandmother, my mother in law, who was suffering from a bit of dementia and who lived in a very nice assisted living facility. I noticed that Putera was rather quiet

and after the visit I enquired of him as to why he was very quiet. He said, “Why do you do that to your old people?” He was, of course, comparing the situation to the way they treat old people in Bali. They live with and are cared for by one or more sons and their families and the older person has their entire family around them all the time. I have to admit that the Balinese system is better. While we were visiting the family in Georgia we went to Florida to my daughter Ashley’s vacation home on the Gulf Coast. I was worried that a Balinese person would not like the cold weather in Colorado, but he said, “Florida is too hot.” It was indeed hot in Florida in the middle of August.

I am sure that every Balinese has a sweeping gene somewhere in their make-up. I know this because they are always sweeping something. Putera was no different. He would go out into the yard in our home in Colorado and sweep up all of the leaves. He swept so hard that he swept up all of the grass. We have a saying in Colorado that if it is green, let it live. It was becoming fall and I told him that sooner or later all of the leaves would fall off the trees and they would fall faster than he could sweep them up. Sure enough, one morning it snowed and covered all the leaves. I think we had a good six inch snow fall. He loved the snow. We made a snowman in the front yard. Each time it would snow he would lie in the snow and make angels, just as we all did when we were children. Unaccustomed as he was to the snow, he would not dress properly for the cold. We had secured for him boots, a parka, gloves, and earmuffs. But one morning he came down the stairs to go outside and play in and sweep the snow. He was wearing his gloves, parka, and earmuffs. But he also was wearing shorts and flip flops. Danielle, being a mother,

said to him, “Putera where are your boots?” Even though he was in his early forties he sometimes acted like a young boy.

He enjoyed the times that we took him fly fishing for trout. One time we were fishing on a small Colorado stream that had a number of beaver ponds. We had caught several smallish Browns, Rainbows, and some Brook trout on this small mountain stream. Putera was standing on the top of one of the beaver lodges when it collapsed and he found himself inside of the lodge. He literally disappeared for a time. We were fishing with my cousin Bruce Foss and with his friend, Dan Parker. We all had a good laugh after we pulled him out. We asked him if he saw some beaver down there. That was one animal that he never did get to see even though he had been in one of their houses.

He had come to America to study the American tourism industry since he worked for a large tour company which is owned by his father in law. His job was acting as the ground agent for the Japanese tourists. He speaks Japanese very well. We talked to a number of people in the US who were involved with the tourist industry. One travel agent told us, “All of my clients are very high-end”. She said that like the snooty bitch that she was. She just didn’t know what Putera’s job in Bali was working as a ground agent for the very high-end Japanese tourists. If you can keep the wealthy, demanding, high-end Japanese tourists happy you can certainly handle the high-end American tourist. We almost had a ‘no-salary’ job lined up for him with another company. Of course his visa was a tourist visa and prohibited him from working. This was to be a learning

experience for him. But the lawyers in the company were concerned about Workman's Compensation of all things. What if he were injured on the job? Sitting behind a desk? Getting his finger caught in a pencil sharpener? The opportunity vanished.

I am reminded of the time when I was in charge of a large food bank operation in southern Colorado and northern New Mexico. We had secured the services of a large trucking firm who would haul our non-perishable food some distance for no charge. This was using the dead-head trucks on their return voyage. But the trucking company lawyers were concerned about liability and their insurance rates. Again, the opportunity vanished.

One day we were at a Chinese restaurant in Colorado Springs and I said something to Putera in Indonesian. The waiter at the restaurant looked at us rather funny and said, "You speak *Bahasa*." His name was Vido and he was from Bangka Island off the east coast of Sumatra. He introduced us to a girl, Astrin, who was from Jakarta on Java. This is how we learned of the many Indonesians who were right here in Colorado Springs. Some have green cards but many of them simply overstay their visas. It is rather easy to do. They come on a tourist visa or first secure a job on a cruise ship. They simply miss their flight when their contract is up as they are dumped off in Miami or they simply overstay their tourist visa. They know full well that they will be banned for life from returning to the US when they make arrangements to go back to Indonesia. But that seems to be all right with them. They will make enough money in four or five years to build a house and live rather comfortably back

in Indonesia.

Putera was asked to make a presentation to our Rotary Club about Bali. During the introduction of him to the members I mentioned that he was married to a beautiful dancer, was the father of four children, had a master's degree in economics and would be speaking in his seventh language. He speaks six other languages besides English. He did a fine job and the talk, with a number of pictures, was well received.

One day he was talking on the phone to his aunt in Bali. He finished talking to her, hung up the phone, and said, "I have some sad news. My great-great grandmother just died. She was 132 years old." I said to him that he must be wrong. Nobody can live that long. The oldest person in the world was 116 years old. She lived in Russia and had recently passed on. Putera looked puzzled and told us that she was 10 years old when the volcano of Krakatau exploded with the largest sound ever heard by human beings. He told us that he used to sit in her lap and she would tell stories of the aftermath of the explosion. I had just read the book, Krakatoa, by Simon Winchester and knew that the eruption took place in 1883. Doing the quick math, I figured out that 1883, minus ten years, subtracting from the current date --- was exactly 132 years ago. Birth certificates were unheard of in the Indonesian archipelago that long ago and they are generally not used in the rural areas to this day. People would judge their age by significant events. The Indonesians have routinely been rather casual in their spelling of words. Krakatau or Krakatoa? It seems as if the second spelling is the western spelling. The original dispatches from the area of the

volcanic explosion had miss-spelled the name and it just stuck.

I did manage to canvas the numerous local fly shops in the Colorado Springs area. They unanimously agreed to buy the Balinese tied fishing flies. This was after I explained that this was a charity project and we could not guarantee a production schedule. They all indicated that they have no restrictions on where they receive their flies and that they would buy them all, depending on the quality. Prices were to be determined based on the looks, durability, and quality. A sack of flies would be a fortune to people in the project area of Bali. I was heartened by the owner's responses. I made lists of the top selling flies including their color and size. Next stop was the local Trout Unlimited meeting where I inquired about supplies. The idea was that every fly tier that I know of starts out with a 'starter' vice. When the new tier decides to keep going, the first thing he or she buys is a proper vice. Now, what happens to all of these starter vices? Of course they go in the attic or somewhere. All we need is these 'starter' vices. I was given a number of simple vises and some other materiel such as hooks, thread, scissors, and etc. I am grateful to my cousin and fishing partner, Bruce Foss, for contacting the professional tiers in the Denver area. The TU people and the fly shop owners were very generous as well.

We were in Colorado on September the 11th, 2001 for the tragic event of the World Trade Center. We were in bed that morning when my daughter, Ashley, called from Georgia to tell us the news. I remember upon hearing of it that I immediately said, "Osama Bin Laden". But what the American public does not

know is that Megawati Sukarnoputri, who was the President of Indonesia at the time was the first head of state to make a visit to the USA after the event. And that was, in part, to apologize to America for the Muslim atrocity. And Indonesia has the world's largest Muslim population. Her state visit and apology was not reported in the press and few Americans know of her trip. The Indonesian government was livid. Why it was not reported, I do not know. Perhaps it has something to do with her being a woman and the President of the world's largest Muslim nation. Both are anathema to the terrorists. We know so little about this land-- the fourth largest country in the world.

Life in Bali

Our life in Bali is much different. Different than Colorado and much different than life in the area of Amed. First of all, the Bali that the tourist sees is a lush tropical island peopled with a marvelous culture. It is the mountains, the rice fields, and the serenity that draws the tourists. It has all the art, music, dance, and religion that one would ever ask for. Amed is a bit different. About the only things that are available to tourists are the beaches, the fine snorkeling, and the colorful *jakungs* (outrigger sailing canoes).

The spirit of the people and the beauty of this island is what brings the tourists. America is somewhere near the bottom in terms of numbers of tourists that visit Bali. In the recent edition of the Bali Update the US is ranked number 10.

It places near Belgium in its numbers of visitors. It is not a place to come for the weekend. It is simply too far away. The Japanese, the Australians, and the Chinese have the biggest numbers of visitors. That is, not counting the domestic tourists. We don't really care much for the expat community. They are generally running away from something. We don't care if they come from Europe, Canada, the US, or from Australia. For the most part bad marriages, financial problems, and addictions are all represented in the ex-patriot community. They seem to all suffer from nostomania, a burning desire to return home, but they all seem to profess a lot of knowledge of Bali. And it is often wrong. I think that the more one learns about the Balinese culture, the deeper becomes the subject.

Some time ago we were staying in an accommodation where our next door neighbor was Bill Dalton. He and his Indonesian wife and family had come for a vacation in the big city of Ubud. He had written one of the very first guide books to Bali. Indeed I had read his book before the first trip to Bali. I mentioned to him that I had not seen much that he had written in the last several years. He responded, "Well, big companies such as the Lonely Planet have hired people that can actually write." Much later a man from the Lonely Planet gave a talk at our Rotary Club. He mentioned that he had written the guide book for Bali and Lombok. He said that he had spent a couple of weeks in Bali touring around and then went to Singapore to write the book. When asked about how he had grasped this complex culture in such a short period of time, he said, "I just borrowed from what others had written". A lot of miss-information is evident in these guide books. The writers seem to want to

romanticize this place. Some years later we heard Bill Dalton speak at a venue. He mentioned that writers of travel guides, map makers, and others will intentionally put a false entry into their work. They call them 'bunnies'. It helps if and when their intellectual property is stolen by others. But a small independent company must weigh the costs of litigation in these cases. A large number of writers adding a falsity into their writing will add up to a lot of miss-information. And given the diversity of the culture and the changes that exist between regions, there is a lot of misinformation in the books about Bali.

The area that the tourists call Ubud is a collection of small villages. Where we live in Ubud is actually a small village and a district. But the surrounding villages are also referred to as Ubud. Sort of like a county in the US. We actually live in Banjar Kalah, Desa Peliatan but we call it Ubud. *Kalah* is a Balinese word for 'lose' as in 'we lost the battle'. But I have never found out from the villagers why our *banjar* is called that. Actually Ubud is just a short walk to the north east of us. While it is still a nice place to come to and is relatively inexpensive, it still has its problems. There are those expats who came for business or to study the dance or music and stayed because they liked the culture. But these people are in the minority. Then there are the people who come to Ubud to fulfill their 'inner being'. There are plenty of these yoga, spiritual people, and seekers here.

Indonesia makes it very difficult to work or to own property of any kind. Foreigners are miss-led by the real estate people. They are led to believe that you can own, or at least control, real estate. Foreigners cannot own one square inch of Indonesian land.

One simply must have an Indonesian citizen whose name is on the title. A trusted Indonesian nominee or partner if you will. Any number of companies will help one execute a special power of attorney. This POA takes all the rights from the Indonesian citizen. The problem is that the POA is not recognized by the Indonesian government, including the courts. And besides, the POA expires on the death of the person who signed it and is not transferable. If the Balinese partner sells the property out from underneath the expat 'owner', there is simply no recourse. The courts are as corrupt as the government. As an expat, if you ever find yourself in a court of law, you are going to lose. That is just the way it is. Our friend, David Hardy, once bought some land from a friend of his who wanted to open a photo shop. He needed the money to open the store. David bought the land which was about ½ of an acre. He did so with a Balinese nominee on the land certificate and then executed a POA that basically said that all the rights to the land were taken away from the nominee. David later had to move to Bangkok, Thailand for health reasons. As soon as he moved, the Balinese nominee sold the land, ostensibly to pay off some gambling debts. David is good friends with one of the sons from the royal family of Ubud. The advice he got from the king was to do nothing. He had lost everything, land and money, and had no recourse. One rule of thumb is to avoid the police whenever possible and never involve the courts. Once one is comfortable with the rules of the game, this is a nice place to live.

We were invited to go on a prayer outing on a small island to the east of Bali. It was with the Peliatan PKK, the *pendidikan kesejahteraan keluarga* or the women's advisory committee to the

city government. There were 43 women and three men. Myself, the *pedanda* or Balinese high priest, and the *kepala desa* or the mayor of Peliatan. The priest was included for conducting the rites. But the mayor was up for re-election and could not miss this political opportunity with these powerful women. We were all dressed in our best *pakian adat* or traditional temple clothes. We were waiting for the small busses to take us to the fast ferry for the trip to island of Nusa Penida. Our friend, Nithi, who had invited us to come asked, "You are Christian, yes?" When we answered in the affirmative she said, "Good. I hope this experience will help make you a better Christian." I have never forgotten what she said. It says a lot about the nature of the Balinese Hindu people.

Contrast that with the experience I had with a Christian pastor who is Balinese. We were traveling to Tabanan to visit an uncle who was an inventor and a water genius. I asked him when he was greeted by his Balinese friends, who knew that he is a pastor in a Christian church, if he was greeted with the traditional Christian greeting of *salam sejahetra*. He answered, "Yes, always". I then asked him if he greeted friends who he knew to be Hindu with the traditional Balinese Hindu greeting of *Om swastiastu*. He said, "Of course not. It would mean that I agree with their gods". Hmmm.

About this same time the attorney named Kim Stogner and I took a road trip after we had rented two motorbikes. We had gone up the mountain to Bedugal and were coming home near Tampak Siring. As we rounded the bend in the road we were trapped in a police sting operation. When we showed them

our Colorado driver's licenses they proclaimed that they were no good in Indonesia. Neither one of us had an International Driver's License. They gave us both a court date which was long after we would leave. After much negotiating they agreed that we could settle the matter right here and now. It would only be 50,000 Rupiah each, which was then about \$5.00. Kim, the attorney, said, "Can I have a receipt for that?" My heart went into my stomach and I said to him, "Give him the money and let's get out of here". Once a lawyer, always a lawyer.

Why do we like Bali? We like it for many reasons. One reason is this recollection of a recent New Year's Eve. Sure is quiet this morning after the raucous evening of many, many fireworks. It seemed like it was not so much a celebration of the coming of the New Year but of celebrating the end of the last one. At least that is what it felt like. There were rockets all around the house. Fireworks were being lit from every side of the house. It was the longest display that we have ever heard. It was more like a victory celebration. Contemplative and serene it was not. Fireworks of all types are legal, cheap, and plentiful in Bali. And in a place where many of the roofs are made of grass!!! And there is no fire department in the Ubud area. From time to time we see the fire truck from Gianyar, a much larger city to the east, which is a good 30 minutes away.

Now as for our dog, Putih? Wow, she survived, but we were not so sure at the time. She really doesn't care for fireworks. Especially those big rockets that whoosh, bang, star burst, and then have a loud fizzling sound. We thought that she was looking in vain for a cave or a den to hide in. She couldn't get away from the flashes

and the bangs. But then she would panic and run out into the compound and then to the alley. Danielle would track her down and bring her back. She would appear to appreciate the effort and then curl up in her favorite corner in the kitchen. From dusk until after midnight there was a constant din of aerial rockets and loud flash bangs. And, of course, the climax at midnight.

And she was not alone. About 10:30 a strange dog appeared and seemed to be looking for a place to hide. Two terrified dogs are going to want to fight. Our dog seems to have a mission to protect us. So Danielle barricaded themselves in the kitchen while I chased the stray dog out of the compound. When the stray was gone, Danielle opened the door and Putih sniffed around a bit and then shot off like a rocket. We heard the fighting and yelping and off we went to save our dog. We never saw the stray again, but Putih got a good bite on her back. Betadine was the only thing we had to doctor her with and luckily the bite is where she cannot lick it. We hope there will be some changes this year. It looks like an opportunity rich environment. But whatever will be, will be. Best wishes for a prosperous and happy New Year. *Salam sejahtera dan selamat tahun baru.*

We built our house in 2009. It is a two story affair with a master bedroom upstairs and a guest room downstairs. It is a small Balinese style house which looks bigger than it is. We joke about the difficulty of transporting our snorkel gear back and forth to Colorado. It is heavy and takes up a lot of room in the suitcase. So we built a house to store it in. We spent a lot of time taking photos of friend's homes. We would say, "I like this bathroom".



OUR HOME IN UBUD.

Snap. “I like this window”. Snap. “I like this door”. Snap. We then assembled all the ‘likes’ into an architectural drawing. I am not much of an architect. When the drawing was completed, it was a monstrosity of a house of some 6,000 square feet. It would not do. Luckily, Danielle found a house that she liked the footprint of. Since the Balinese can copy anything, all it required of our builder was turn the building 90 degrees and to make it Balinese style. The copied floor plan was Javanese style with round columns in the front, no carving on the wood and no stonework on the corners.

When we were building the house it required a lot of teak wood. The supplier of the wood delivered it and dumped it on the road to the boutique hotel near our construction site. It was, relatively speaking, a lot of money on the public road in that pile of teak wood. Now, I knew that if this were in Colorado,

it would not be there in the morning. We were staying in one of the houses of the hotel and that first night I heard some banging and clattering in the wood pile. I went to investigate. Sure enough, there was a man loading all of the wood on a flat-bed truck. I asked him in my best Indonesian what he was doing with the wood. He said, "He was taking it home." While I was thinking how to say in Indonesian, "Why are you taking my blankety-blank wood?" a driver for the hotel came around the corner. He spoke some English. So I asked him to ask the man why he was taking my wood. He said, "Don't you remember? You hired him to carve the wood. He is taking it home to carve. And then he will bring it back." I felt about an inch tall. There is an old Balinese saying that 'If a tourist misplaces his luggage the only thing that will move it is the wind'.

All in all we were very pleased with the efforts of the work crew. We had no problems whatsoever. The first question asked was, "Do you really want the kitchen inside the house?" Most Balinese homes have a separate building for the kitchen. Another issue came up when our architect asked Danielle, "Which direction do you sleep?" She answered correctly with, "Of course, with my head towards the great mountain." He seemed much relieved as it only required him to flip the staircase and the kitchen so that we could position a bed upstairs in the proper direction. I did email a friend in the States about the formula for stairs. The Balinese are very casual about the rise and run of stairs. It almost always means that the steps are too high and very uneven. Now that would not do for a westerner accustomed to even stairs. Armed with the rise and run formula I penciled the location of the wooden stairs on the wall much to the chagrin

of our *tukang bangunan* or master builder. He was a good sport about the whole thing. He had built many accommodations but he did ask us a few questions about the plumbing and where we wanted the electrical outlets.

One day our architect came by and stated that the workers would not come to work that day. He stated that his grandmother had just died and everyone in the village was involved in the cremation preparations. He said, "But that is ok because she was very old." She was 96 years old and was a very pleasant woman. We would walk by her house and wave to her as she was sitting on the porch. Nothing was done for two weeks on the house construction as the village people were constructing the cremation tower and building the wooden cow she was to be cremated in. She was the widow of a Hindu priest and, as such, she could not be buried but had to be cremated right away. Since she was to lie in state at her home, her son, who is the owner of our land, went with her to the big city of Gianyar and had his mother 'pickled' as he said. They went off in an ambulance with lights and sirens the whole way and back again. It was the first time that we had been up close and personal to a person who had died and we were involved in all the ceremonies. We could learn a lot from the Balinese about the process of death and dying. Of course they grieve at the loss of a loved one. But the cremation is a happy time. It is all about the proper send-off of the soul.

The house was finished in about seven months. Our first guest was a woman from New Jersey. We scrambled to get the proper furniture just days before she was to arrive. She is a good friend

and we had invited her to come to Bali for some time. I told Danielle to tell her to leave her high heels in New Jersey. The sidewalks in Ubud are problematic at best. Of all of our friends I would vote that Mary Haney would not like Bali. What a surprise! She loved it. She enjoyed the shopping, the people, the culture and the adventures – the whole ball of wax. Marc and Shelly Canady were our next guests. They, too, enjoyed their stay. As did Don and Carole Magill on their swing through Asia. They had just been on a river cruise in China. Credith Cohen and Stan Streleki left after having a busy 3 weeks in Bali in November. They are friends from Loveland, Colorado. Always a challenge to determine if guests want to do the touristy thing, or the cultural thing, or the traveler thing, or the shopping thing, or the relaxing thing. But then I guess they don't know either. Terry and Michael Gerrard were our next guests. They enjoyed their stay immensely. We had about 5 weeks of activities planned for them and we got about 3 weeks of things done. Our next guests were Stan and Henny Harsha. She is Javanese, originally from the island of Java, and he, an American, is recently retired from the State Department. I had a bit of a problem communicating with her in Indonesian. It seems that I was using a lot of Balinese words that she did not understand. They are building a house here in Bali on some land that they had purchased some years before. We got a kick out of him grouching about the fence they just built around their land. It cost more for the fence than did the land which they had purchased a long time ago. The important thing is that he has a friend who is a hydrologist who wants to come to Bali and to help us with our water projects. Then we had a guest named Francoise who was a young lady from France and then we

had a couple from Colorado Springs. Lindsey Nubern is from Atlanta and Adam Nubern is originally from a small town east of Atlanta. They both graduated from the University of Georgia where my eldest grand daughter is in school (both her mother and her grand mother went there). Lindsey has a master degree in Public Administration from the University of Colorado at Colorado Springs; as do I. They now live in Colorado Springs. But it is nice to have our house all to ourselves again.

It has been somewhat hot and humid for November. This is “slow” season. Tourism is down this time of year and will pick up again for Christmas. Our rice is about 3 feet high and mostly full grown. Now to bud out. This ‘original’ rice takes a cycle of 210 days, which is the exact length of the year in the Balinese calendar. It is fun to watch them do the old fashioned thing. The planting is much the same as the new rice but the harvesting is much different. They cut the heads of the rice stalks off with a small knife hidden in their right hand so as not to startle the rice. Then they group the heads into a sheaf and tie it up somehow with a strip of bamboo or rattan. The sheaves are then transported to a *lumbung*, rice barn, where they store the crop. They will take only what they need for a few days and then winnow and dry the portion. In the back and to the side of our house, they plant the new, improved strain of rice – IR something or another. It is a follow-on with the work of the American Doctor Norman Borlaug and the ‘Green Revolution’ in the 1960’s. They have shorter stems and the rice falls off the stalks in the field. That is why they thresh the ‘new’ rice in the fields. With that rice they get almost three crops per year. That is why the ‘original’ rice is more expensive. Most people agree

that it is much tastier and more fragrant. The temp has hit a high of 86 degrees Fahrenheit with a humidity of a little less. Uff Da! It is really the humidity that gets to people from North America and Europe. November is really the only month that we use the fans. Our house has neither air conditioning nor a television set. But we get our news from the laptop and access it with our very unreliable internet.

November is the beginning of the rainy season. That means it rains at 2 o'clock instead of 4 o'clock. That is an old Balinese saying that I just made up. The second week in November 2012, Bali was graced by his Excellency, the POTUS. What a fire drill. We had police and military swarming all over our compound because Michele Obama was visiting a museum about 600 meters to the east of us. The farmers were told not to come to work. No one is allowed in the fields. The road (the only road) was closed all day. Seven war ships were off the coast (two of them were American). The Jakarta Post reported that he came with 4,000 body guards, his own fleet of cars, helicopters, and such. Much different than when he was living here in Ubud, ostensibly to write his book when he was on a sabbatical from his teaching time just a few short years ago. The airport was a zoo from Wednesday to Sunday (16-20 Nov). Stan and Credith came in on Wednesday, the day before the POTUS was to arrive. It took a long time to land, clear customs and immigration at the airport, and to drive to Ubud. The traffic was horrendous. Our friend, Nithi, was one of ten Indonesians that were invited to display and exhibit their craft for the Heads of State. She makes and does amazing things with textiles. President Obama walked by but did not stop or

say anything. Danielle asked her if she shook his hand. Nope. Did he speak to her? Nope. But she saw him up real close.

So that month has had us at a friend's wedding which was the first of two ceremonies that we attended, river rafting with Putera (the man who stayed for six months with us in Colorado), snorkeling and diving on a Japanese shipwreck, attending a beach party in the south, finishing Water Project # 8, starting Water Project # 9, and working on a mobile health clinic in Amed. Oh yah, and doing touristy things with Credith and Stan for 3 weeks.

I have really slowed down my reading and haven't tied any flies for about a long time. That brings us up to Pearl Harbor Day. Wow, Christmas in about two weeks. No holiday spirit here in Bali except that which lives well in our hearts. We will put out our ceremonial umbrellas for the holidays. They have a real shortage of Christmas trees over here. A few years ago we went to the beach in north Bali for holidays and celebrated (sort of) with some Australian friends. They had stocked the refrigerator with all kinds of meat that he would be barbequing for Christmas dinner. But the refrigerator did not work or went on the blink and he lost all the meat. Actually he notice that the refrigerator did not work when he noticed that his beer was not cold. That was not the only problem he had with the rented villa. The pool leaked and was filthy. The beach was so filthy and we could not swim in the ocean. The air conditioners did not work and there were several lights that did not work. They had rented the villa on line. Never mind that we fell victim to the old scam of 'registering' with the police. For a fee we got a

forged paper that claimed we were registered, despite the fact that we lived in Ubud. We never know yet what our plans are from time to time. But it will be.

We really enjoy celebrating Christmas here in our beautiful place in Bali even though it is a bit different. It was warm today, about 86 degrees Fahrenheit but no rain. The rainy season has already started. We have a cute little Christmas tree with Chinese lights. Ha, I'll bet all of us have Chinese lights. It even has wooden decorations of angels, some Santas, a few ginger bread thingies, and a beautiful beaded fish. The Balinese know that this is an important time for Western people and every one wishes us a Happy Christmas, just as everyone would do in the good old U S of A. We enjoy it so much. We have two large, red ceremonial umbrellas that we will put out on our front veranda for the special days. Several parties and gatherings with friends are happening during the holidays. Christmas morning we will celebrate with an exchange of gifts and then Danielle's famous eggs benedict. Following that we will have dinner at a Balinese friend's *warung* (or small restaurant). She is a great cook and we will have turkey with all the trimmings. It is very quiet here except for the sounds of the jungle, so it doesn't really feel like Christmas. No snow, no cold weather, and no Salvation Army on the corners. The rainy season has started. It makes everything more vibrant. The earthy smells of the jungle and the sounds of the birds, frogs, roosters, and crickets are amazing. So to all of our family and friends who are half a world away, we are wishing you and yours a very merry Christmas and a healthy, happy, and prosperous new year. No snow, no howling winds, no cold weather, no ice. The Christmas of 2014 was surrounded

by the ten days of *Galungan* which occurs every 210 days. It starts on the 17th and goes till the 27th of December. After the ten days it is *Kunigan*. All the *penjors* (decorated bamboo poles that arch over the road) are up in front of everybody's house and places of business. It sure looks festive and colorful. For the Balinese this is the time for all the ancestral spirits to be invited back to earth. On *Kunigan*, ten days later, they must go back to where ever they came from. The school children were cheated out of another vacation because of the coincidence of Christmas and *Galungan*. But that's ok, they just take another week until New Years. It is important to keep our traditions. There are amazing parallels between Christmas and *Galungan*. One, it is family time. Two, it is time to re-examine your relationships to God, all the people, and the earth we live on. And three, it is a time to worship what you believe. The Balinese revere and celebrate the spirit of their ancestors with the same energy that we celebrate the birth of Jesus. It is a time for forgiving and, yes, gift giving. They all wish us a happy Christmas, *selemat hari raya Natal* as we wish them a happy Galungan, *selemat hari raya Galungan*.

One Christmas season, Danielle had gone back to Colorado Springs in the States while I stayed in Bali to finish one of the water projects. In Colorado she had nothing but trouble. The sewer backed up, the downstairs water pipes in the bathroom froze, and she inadvertently locked the front door and couldn't get in. Each time she would call me in Bali. There was little I could do from here. She was real happy to return to Bali after the New Year. Sometime later at a gathering, I was explaining to some friends that I really do not miss the Christmas hype

of getting the right presents, putting up the lights, going to the mall, and all the rest of the holiday bustle. I said, “It was probably the best Christmas I have ever spent”. It was not the right thing to say. Danielle was furious.

Obviously we do more than watch our rice grow although that is a fun thing to do. Weddings, birthdays, reading, Rotary projects, birding, badminton, tying trout flies, and long walks. We even get to do some touristy things when folks come to visit which is not often enough. Musical performances, dance performances, temples, bat caves, elephant caves, snorkeling, white water rafting, and salt water fishing. Add the time spent studying the language, absorbing a very complex culture, and learning about local religious beliefs. Well, we just don't know what we do every day, but we sure are very busy. We may not have a TV set or a radio but our Christmas music is the beautiful sounds of the jungle; the geckos, the frogs, the roosters, the insects, and, of course, the birds.

However, we sure miss family and friends and their special days. Children and grandchildren are a half a world away. Cheese burgers and chocolate chip cookies are also a half a world away. But this is a special place and the love that people seem to have for each other is contagious. We give up a few things, but gain so much. And what we give up is seeing and being with our families.

Lest you think we just sit around and read and watch the rice grow, I would like to modify that somewhat. We had two painters who refinished the wood. Most of it anyway. They did

the windows, doors, and posts. Took them 7 full days or 14 man days. The supplies cost about \$40 and the labor was close to \$70. Now about the fish pond..... Well, not everything is perfect. We waited until our rice was harvested. That was in early October. Then we built a small irrigation ditch from the river around the rice paddy in front of the house to an underground cistern with two chambers. From there we pump to the pond's water feature that is a statue of *Devi Sri*, the rice goddess. The continual flow of water will keep the pond clear of moss and gunk. The runoff goes behind the house to the rice fields. This way we do not have to get permission from the *subek*, or rice water organization, to use the water. Our farmer is already a member and we use his water. The only downside to this is that the river turns muddy brown when it rains. And it rains a lot. The two chambered cistern will let the water settle out and be relatively clear. We will also not tax the well water as much. Never a dull moment.

I very much recommend that you see the videos, "The Ring of Fire"? They are travel logs in and about Indonesia. They are worth getting from the library. They are a little old as I think they were filmed in the 80's, but well worth watching. We had a literary supper with the author, Dr. Lawrence Blair, the other night. He wore a patch over one eye and spoke with a parrot on his shoulder. His *shtick* was a little thick, but he was a great speaker and was most entertaining. We learned that he and his brother lived very near our house a long time ago. This place, Ubud, is a real magnet for authors, artists, environmentalists, and spiritual healers. They are all a 'little bit one o'clock' as the Balinese often refer to weird people. But they are entertaining;

even as they say everything is all George Bush's fault.

We heard a coffee house talk a couple of weeks ago by a Dutch engineer who worked here in the 1960's. As you recall, they had a huge Communist insurgency here in the mid 60's but took care of the problem by killing them all. Between 80,000 and 100,000 were killed in Bali alone in 1965. We heard very little about this. In America we heard a lot about Laos, Cambodia, Vietnam, and even Thailand -- but very little about Indonesia. Well, this Dutchman in his talk, stated that the Communist threat was overplayed and that the American CIA was the real culprit. Yup, that is what he said. I had had some experience with the CIA and wanted to believe him. I foolishly bought his book and learned nothing more. Our strategic interest in Indonesia must have been rice and bananas. They do have some oil, but not enough to have but a few refineries in Indonesia. They ship most of their oil to another country to be refined. And most of the oil is in and around East Timor, which is now an independent country.

Of late I have been reading everything that is available about the Gestapu, which stands for *Gerakan September Tiga Pulu*, or the 30 September Movement. The closeness to the German name of the World War II organization is not accidental. Only since about 1999 has any information been available about the massacre in Indonesia in 1965. That is, of course, excepting the government propaganda. We, in the US Army who were responsible for insurgency operations in the Pacific area in the mid-60's, were busy studying the Huk Campaigns in the Philippines, the British experience in the Malay peninsula,

and the counterinsurgency operations in Thailand. And, of course, the counterinsurgency problems of Laos and Vietnam. We were not told about the problem in Indonesia for some reason. Of course the US was keeping a keen eye on things. The Indonesians had the exact same problem as all the countries of South East Asia, especially Vietnam and Laos, except it was not a 'hot' war. They simply chose to solve the problem a little differently. When the people had had enough they just killed all the Communists. Of course there were several incidents. Being of Chinese extraction was reason enough. Affiliation with the Communist cause was enough. There are even stories that protest against the regime at that time was enough. And there were stories of those that were killed because it was an opportune time to hide a murder because of some dispute between people. Estimates of the dead go as high as two million. In Bali, alone, there were some 80,000 killed in December and January of 1965/1966. It is a hotly debated topic. Who was responsible? Who was killed? Who did the killing? What was the role of the military? What was the trigger that brought this on? We have only been told of vague references to atheism and to the land reform efforts by the PKI (*Partai Komunis Indonesia* or the Indonesian Communist Party). But there must be something more. Are they asking us to believe that the people spontaneously rose up and killed two million others by reasons of affiliation or retribution? There are people in our small hamlet who were in their 20's and perhaps had a hand in all of this. But they are afraid to talk. They especially will not speak about it to a western person. It may be all right to talk about it today. But what if the rules change tomorrow or the next day? Only the young people will get at the truth. And what

will be that truth if academics and the press (or governments for that matter) have a hand in it? So far, movies such as ‘The Act of Killing’ have revived an interest in this. More people are aware of the problem, albeit it is only Joshua Oppenheimer’s opinion of the event.

The head house boy, Guli, is a soccer fan and good player. We have been going to his ‘Futsal’ games. It is really arena soccer with a much smaller playing field and a smaller team. It is still very entertaining. An ex-wine grape grower from California and his retired attorney wife are our neighbors and are friends. They have taken on the team as a sponsor. Now they have new uniforms. Fun to be involved. A while ago a Dutch couple, also neighbors, took an interest in Guli’s soccer team. We bought some more uniforms for them. They all had the word ‘BRAD’ on the shirts. It stands for Berry, Richard, Angeleine and Danielle. The teams play for the fun of it. They often will loan a player to a team who is a player short. This happened when we delivered the BRAD shirts which had the colors and logo of a Dutch team. Guli was the player who was loaned to the other team and he donned the white shirt with the logo of a German team. Angeleine was furious and when the other team won the match she said, “The Germans always win”. She never came back.

One time we were dining at our friend, Nithi’s house. It was a delightful time and great food. Her husband, Pak Rai, spoke little or no English. As a matter of fact, he does not like tourists. But he loves Danielle. I wanted to say something nice in Indonesian so I commented that I really liked to eat these green beans. Pak Rai about fell off his chair. I turned to Nithi

and asked her what I just said. It seems as if the words for beans and for transsexuals are about the same. I had said, *banci* when I should have said, *buncis*. It seems I said, “I really like to eat green homosexuals”.

Some time ago Danielle and I were asked to give a water project presentation at the RC Bali Nusa Dua, south of the airport on the *bukit*. The Rotary meeting was held in the five star Nico Resort Hotel. There was a very good turn-out of about 100 people. I sat down after the presentation and sat beside an Indonesian woman with a turban and dark glasses. She said, “Very fine presentation. You know, my husband can help with all the building permits”. She did not know that the people there who would do all the construction could not read nor write. And no government official had ever been up to these villages. Actually the thought of obtaining building permits never occurred to us.

Afterwards I was talking with the manager of the hotel (a Japanese man), the Dutch counsel general and an Indonesian man. The Japanese man complimented me on the presentation and asked if I knew who the last person to have given a speech in this room. He said, “It was your Al Gore at the UN climate conference, the IPCC”. The Indonesian man said, “Yes, I was here and I heard him speak. He is not very bright, is he?” Instantly, we three men looked down at our sandaled feet and said nothing. He may be a climate Cassandra but then again Rotary is not supposed to be about politics.

Some time ago I was sitting on the front porch wearing only

a pair of shorts. It was rather warm and the sun was relentless. I was watching the farmer in our rice field plowing the dirt by hand. He was turning over the earth with a long wooden handled fork. He had been working for several hours when I said to him, "Why don't you plow the field with a cow?" He looked at me with an old, toothless, puzzled grin and said, "Because I don't have a cow." I am sure he was thinking at the time what a stupid, white person that is.

His wife helps him from time to time. She is rather ugly and rather old. On planting day, she helps to plant the seedlings. When the rice buds out, she helps chase the birds. At harvest time she helps cut the rice. The farmer alternates from sticky rice, *beras ketan*, to original rice, *beras asli*. Both are the old style rices. The farmer and his wife are a very nice couple who live in our *banjar*. They speak no English.

A day in late March is Nyepi or the 'quiet day'. After a raucous evening of Ogoh-ogoh, speeches, fireworks, and parades all of the lights were turned off across the entire island at midnight. That day all the cars, buses, and motorcycles are absent from the streets. Everyone just stays in their houses. Farmers don't farm, taxi drivers don't drive, and fishermen don't fish. Politicians continue to politic, but nobody listens. Empty rhetoric falls empty because there are no ears to hear.

The idea is this: The ogoh-ogoh, fantastic monsters built by every group of families, are just spectacular. They are both creative and artistic. They are very tall and carried by several men. A couple of men walk in front of the floats and with long bamboo

poles lift the power lines over the floats. Ogoh-ogoh normally have form of mythological beings, mostly demons. During the procession, the mythological floats are rotated counter-clockwise three times at the intersections as everyone knows that this will confuse the evil spirits. This act is done at every crossroad of the village. The eve of Nyepi at dusk they carry the ogoh-ogoh to the cemetery where they are burned (except that some of those that are sold to fancy Japanese hotels). Once they are paraded through the streets to chase away the evil demons, the entire island goes silent. It is a day and night with no lights, no cooking, and no movement; there are no airplanes in the sky because the International airport is closed for 24 hours. Sure is quiet around here. We can hear the ducks which are in the rice paddy two over from ours. The roosters did not get the word. They crow at first light. The doves continue their cooing, but the swallows chasing bugs over the rice fields make no noise. The plan is to trick the evil spirits as they fly over the land, in that, there are no humans on this island to torment. They must take their evil selves to another island. Therefore we will be safe for another year. What do we do all day long? Well, we write silly little notes like this one. But on to the water projects.

The Water Projects

The first six projects were completed in early 2009. These early projects helped more than 3,000 people in 564 families. Much of our work in the Amed area is in Desa Bunutan. The projects are all for the poorest people who live a long way from any road. The first six projects were done in series between 2007 and 2009 with Matching Grant 66031. The money was from The Rotary Foundation, (TRF) and Rotary Clubs in Colorado, Kansas, Bali and India. The total amount was \$21,500 for the first six projects. The projects were all gravity fed systems and are all still working. So the completed first projects are:



STANDING WHERE WE WILL PLACE A COLLECTION TANK.

PROJECT 1

Banjar Gulinten (at least the lower half of the Gulinten village) was our first project and was the one place that required a four hour walk or climb to get to the project location. It was a gravity fed system from springs completed in 2007. It consisted of a coffer dam, a large concrete top tank and several distribution tanks. This was the location of the first climb and was the first project to be completed.

PROJECT 2

Banjar Gitgit (the other half of lower Gulinten and the village of Gitgit) was our second project. It was a gravity fed system from springs and completed in 2008. It was actually from the same springs as Project 1 literally an offshoot of Project 1 from

Gulinten. It consisted of several distribution tanks and the requisite pipe. This project is where we had the only incident for the water projects where a man carrying a sack of cement fell over a cliff.

PROJECT 3

Project 3 was Banjar Canguang I, or the north third of Canguang. It too was a gravity fed system from springs and was completed in 2008. It consisted of a top tank of cement and several distribution tanks. This is where our friend Ping slipped, fell, and almost tumbled over the cliff.

PROJECT 4

Project 4 was Canguang II which consisted of the center third of Banjar Canguang. It was also a gravity fed system from springs and completed in 2009. It used the same spring as Project 3 and had several distribution tanks.

PROJECT 5

Project 5 was Canguang III which was the south third of Banjar Canguang. It was a gravity fed system from its own springs and was completed in 2009. It was necessary to drive around and trek over the saddle of Mt. Lampuyang to access this part of the village because of a very steep cliff that separated the access to the water and prevented our climb from the coastal road.



SHARING WATER.

PROJECT 6

Project 6 was Batukeseni I (upper Batukeseni) (photo 17). Gravity fed system from springs. The top tank was a very large cement tank. It was 5x4x2 ½ meters in size. On the climb to the top Nydia asked Pak Suka how many children he had. We were told not to damage the sacred tree which overlooks the entire project. The system was completed in 2007, before the government built a 4 wheel path to the top. It may be a one lane road but it is not suitable for cars.

PROJECT 7

The first well that we dug was at Batukeseni and was our seventh project. We had to bore a well because the spring at the top was not sufficient to provide the entire village with water during

the dry season. This was a bored well near the coast and two gasoline pumps to a modified tank of the Batukeseni I system. It was then gravity fed to distribution tanks. It was done with DDF, (District Designated Funds) and with (matching grant) MG 77265 with money from four California clubs and my Colorado Springs Club. This was the RC Bali Ubud Sunset project which was done by RC Bali Ubud and RC Colorado Spring Interquest for a cost of a little under \$10,000. It was completed in 2010. This was my first experience with well-meaning but somewhat meddlesome people. There were too many chefs in the kitchen. The project was initially budgeted for about \$8,000. The four clubs in California and our club in Colorado were to be the funders. The host club was to have been the old Ubud club. I had hand carried to Bali our club's contribution of \$1,500. But the International Projects Chair in California was unaware that there were two clubs in Ubud. So she emailed a friend in the new Ubud club about the project. That person re-did the paper work and added two toilets. I might add that they were the first two toilets in the project area. It was now a project of the new club. It was now a project of \$10,000. I was informed that our club's contribution must go through the headquarters in Illinois as it was managed like a Matching Grant. I immediately contacted my club in Colorado. They grumbled a little bit and agreed to send a like donation to Illinois. I was to simply bring back the money they had given when I returned to the States. Not only was the project high-jacked but the new club had no one to help build the system. It was also the project that was audited some four years after it was put in operation. One of the first questions the auditor had was, "Why did you leave almost \$9,000 on the table?" It

was, of course, the matching portion of the grant from Rotary headquarters which we had not asked for.

The completion ceremony for both Project 6 and Project 7 was attended by everyone in the village and was held at the beach. The ceremony was conducted by an *empu* or Pande high priest. It was a spectacular affair which started at the village temple then followed by a two kilometer walk to the beach.

PROJECT 8

Our eighth project was at Lipah which was actually a group of families of Banjar Lean. It was our second bored well. It was near coast and had one gasoline pump to a top tank. From there it was gravity fed to distribution tanks. It serviced about 550 people. It was made possible with Direct Donation money from Rotary Club Ogoogo in British Columbia Canada and the Wine for Water donation that was raised by an Australian woman who owns the Viceroy Hotel near Ubud. It was budgeted for about \$5,500 and was completed in 2011. The well was rather easy to drill as it was mostly through sand and clay and not through hard rock. The well was completed, the pipe laid, and the top tank sited in record time. The entire project took less than 5 months. Pak Made from Café Indah in Amed was instrumental in accomplishing this project.

PROJECT 9

The Linggawana project is our ninth water project in the high dry hills of Northeast Bali in the Amed area. This water project



FINISHED BATHING FACILITY.

is actually three systems. The original plan was to bore a well at the base of the mountain and pump water to the top for distribution to about 153 families (since each family compound has from 5 - 10 people this will serve between 750 - 1,500 persons). The plan was changed when the village of Gulinten agreed to provide their excess water with a memorandum of understanding to the people of Linggawana. A total of seven fresh water springs feed the three systems. Each system is a stand-alone water project and are all gravity fed which eliminates the need for pumps and the drilling of a well. This will also enhance the sustainability for the long term. The cost remains about the same as the new plan requires much more pipe as we are carrying water over a much longer distance.

All three systems are fed by substantial springs near the village of Gulinten, high in Bali's North East. The springs have a



HOW DID THEY GET THE TANKS UP HERE? NOTE THE TERRAIN.

year around flow rate. System One will pipe clean water to 50 families. It brings two springs to a concrete holding tank and then distributes water to several terminal tanks. System Two serves 23 families and will require no long piping or distribution tanks. A bathing area is built near the collection cistern using the excess water. System Three is the most ambitious and the most costly to date. It will service 81 families and utilizes water from three springs to a large common concrete cistern. This is connected to 10 kilometers of pipe and then distributed to ten terminal tanks.

Because this project required the cooperation of two villages, an overseer was appointed who works on the staff of Desa Kertamandala of which Linggawana is a sub village. The other village was Banjar Gulinten which is a sub-village of Desa Bunutan. A letter of understanding between the two villages

and the two sub-villages was executed. It has more signatures and stamps on it than I would have believed possible. Each of the projects were conceived, planned, and are or will be built by their respective family groupings. Each has a separate foreman. The memo of understanding plus the “ownership” of the three systems will insure its sustainability. Rotary and Rotaract members will insure that the supplies are purchased and delivered to the construction areas in a timely fashion. A supplier in Desa Culik, UD. Lestari Bangunan, was chosen as the main supplier and staging area for most of the supplies. Sand, cement, pipe and tanks are delivered by the supplier to various locations where they are carried by villagers to the several construction sites. This is a great Rotary project that will help a lot of people for relatively little money. It is funded by the Halloween parties of the Rotary Club Bali Ubud. Unfortunately the system is not enough for the users at the end of about 10 kilometers of pipe. There is not enough water the last couple of months of the dry season. This means that we will have to dig a well. This will be accomplished when the Canadian Global Grant is approved.

After a strenuous two hour climb up the *bukit* to the hamlet of Linggawana we stopped for a bit of a rest in some farmer’s house. Again there were no roads to the village, not even a motor bike path. I was exhausted and wringing wet. There I saw his young wife nursing a baby. I asked her, “Who helped you with the delivery of your baby?” I fully expected to hear her say something similar to what we had heard many times. Something like, “My husband helped me deliver the baby on the dirt floor right over there.” But she said, “A *bidan* (midwife)

helped me with the delivery”. I was somewhat surprised and said something like, “A midwife came all the way up here?” The climb had taken about two hours. She answered, “No, when I was having labor pains I walked down the mountain and over to the village of the mid-wife. There, I had the baby in her office. Then I rested a time and took the baby and walked home”. Wow. I had heard that mountain people are very hardy but this story was over the top.

At one time we had invited an Austrian couple to join us for a trek to check the 10 kilometers of pipe and the mid-way station. We would trek up to Linggawana which would take us the better part of two hours, then follow the pipe to Gulinten Kelod, and then go down the western side of the mountain. The woman, who spoke better English of the two, informed us that we were not to worry about them because they were both experienced mountain climbers. Well, they both took off like rockets. Like some kind of Billy goats they walked and climbed. This went on for about 45 minutes to an hour. Then they both petered out. She before him. We had to slow down several times for them to catch up. There was no leaving them on the mountain to pick up when we came back because we were going down the mountain from a different place. It was a long and difficult climb. We later speculated that it was the warm, humid air that got to them. Perhaps they suffered from jet lag on their trip from Austria. Who knows what the reason was? When they thanked us for taking them they never mentioned their problem.

PROJECT 10

Gulinten II was our tenth project and the village was revisited to accommodate 41 families or about 250 people on the ‘wet’ side of the mountain. Actually they have a big spring at the bottom of the mountain and the leaders have determined that they want to eliminate the carrying of water from the bottom. We used the large spring and pumped the water to a large cistern at the top (near the two antennae by the elementary school on the road) and gravity supplied it to four tanks from there. It cost was 39,985,000 Rupiah or about US \$4,250.00. The idea came from the Kepala Dusun Gulinten and the villagers after the successful completion of the Linggawana project. It was this project where the village chief and I were discussing a minor problem and he said, “You know. Just like you did in Lipah”. Construction was completed before the rainy season in November 2013. It is easier to construct and safer to carry



TANKS THAT STOP THE PRESSURE, HALF WAY UP.

supplies during the dry season. This was our only “upside down” project with spring at the bottom. It was done with Direct Donation funds from RC Bridgetown, Australia and RC Colorado Springs Interquest, Colorado.

PROJECT 11

The Banjar Aas (a Banjar of Desa Bunutan) problem was our most expensive and most involved of our projects to date. The original plan was follows: Banjar Aas is a small village in Desa Bunutan, Karangasem, in northeast Bali. Most of the people are subsistence farmers. Some villagers who live near the coast road are fishermen. As in all our project areas, corn is the staple crop. No rice is grown here because of the lack of water. During the rainy season from December to March they are able to grow some pumpkins, cassava, and peanuts which grow along with the corn crop. During the dry season, the villagers must walk a great distance to collect water for drinking and cooking. The area is very dry because of the rain shadow of mountain range to the southwest. The highest mountain, Gunung Agung is over 3,000 meters high and the summit is located about 12 or 15 kilometers from this village. The village is spread out over a vast distance because the subsistence farmers live on the land they farm. The plan is to bore our third well near the coast road on village land. It will be a deep well of 35 to 75 meters. We will then pump the water to a large series of tanks or a concrete cistern at the top. Then gravity feed from the top to approximately 15 plastic tanks of capacity 1,100 liters each which is one tank for approximately 10 families. Distance from the well to the top tank is about 1 1/2 kilometers. Elevation

of the top tank is more than 300 meters. We had to estimate the height and the run to the top tank because our GPS units would not work in this area because there were no cell phone reception. All planning, construction, carrying of the supplies are to be done by the local villagers. Rotarians and Rotaractors will purchase the supplies and insure they are delivered to the construction area. The expenses are the construction material, the digging of the well, and the pumps. Sustainability is always an issue with mechanical pumps and gasoline engines. A small hook-up fee will be charged to each family and a usage fee of 25 or 30 cents per month per family will be charged. This will pay for routine maintenance of the pump and engine, and will pay for the gasoline use. A person in the banjar will be trained and will be in charge of maintaining the pump. Village leaders will routinely check entire system and will check the pipe for leaks, etc.

The Banjar Aas project was divided into three projects because of the funding. They are actually projects 11, 14, and 15. Project 15 is known as the Beluu Extension. The Aas Distribution System is the second part of the project which is called Project 11. The reason that this number is before the well is that we had the below listed problems with the digging of the well. We actually laid the top tank and the distribution tanks before the well was dug. Funding is from RC Bali Ubud Halloween parties and direct donations from Sylvia McRoarty from Toronto (Canadian \$1,000) and from Henry and Elaine Eiler from Tasmania (Aus \$1,000), and RC Colorado Springs Interquest (US \$1,000). The cost is about \$6,000. It will be a gravity fed distribution system to a number of tanks. It will help

174 families, or about 870 to 1,100 people. The top tank and the connecting pipe was installed before the well was finished.

The top tank is a 3,300 liter plastic tank. It is placed near the Kelian Adat's house, Pak Wayan Widia. *Adat* means customary. But I think it means something more. His duties in the village concern everything to do with religious ceremonies which include tooth filings and weddings. His territory may coincide with the traditional village or may extend beyond. The top tank is connected to about 1 1/2 kilometer of pipe to 15 distribution tanks of 1,100 liters, each on their respective platforms. This was all accomplished before the well was completed.

PROJECT 12

The project at Banjar Ancut was to be our 12th project. The *kepala dusun*, I Gede Narka, was our contact. The well that we were going to fix was behind his house. But some problems developed after we had begun the project. Sadly we had to close this project down after we had uncovered a few problems. The following is an email exchange we had with an engineer named Ryan Fu Sum:

“We have our internet back on line. We were in Candidasa from the 26th of September so I was not able to answer your questions. (Some I cannot answer). But thank you for your work. I am forwarding same to Allan Starr who is an engineer. Perhaps he can answer some of your questions. Also, I am forwarding this to Cok Raka who is also interested. Bill and Judith are from the Foster

City club who is funding this project. The guide lines that we use are 20 liters per person per day. So that is 200 families or about 1,000 people or about 20,000 liters per day. The top tank will be about 5,000 liters distributed to 10 or so 1100 liter tanks. The fall from the top tank to the distribution tanks and the distance to these tanks are only estimated. We will just work them until we get it right. *Kran* is the Indonesian word for valves or faucets. Each distribution line will be separate with their appropriate *kran* or stop valves. What we plan compared to what they build is often quite different. Sometimes it works better that way. Will let you know when we will be going back to Ancut. Usually it is on a Sunday. That is when the Rotaractors are available and when our friend, Ping, has his day off.

He replied,

”Regarding the pump, I did some calculations for the NPSH available. Altitude is a significant factor at high elevations because of the low pressure. The suction limit is around 7m (minus the NPSH required for the pump). I suppose with our flow rate, total head, NPSH required, we can select a pump with a Best Efficiency Point somewhere in that area. I’m not sure if we will be limited in what we can procure and just design around that?”

Regarding the flow rate, the maximum flow rate of the pipes should exceed the flow rate of the pump for the head tank to make any sense as a storage tank/flow equalizer. The pipe length is required for calculating

friction loss and any geometries for minor losses, then we can adjust the pipe diameter. Perhaps, I can help gather that data when they go back to the village.

Also, someone at the Rotary meeting mentioned that we needed to address the issue of sustainability. Improving access to water resources isn't enough. We should help them manage and use their water resources more sustainably. Maybe improve the effectiveness of the water that they are already using? Or help them track their consumption? I don't have many ideas on this issue beyond low flow faucets for hand washing.

Anyway, I'm going to try downloading Water CAD just to check my calculations. :)

Thanks,
Ryan”

Allan Starr wrote:

“Hi Ryan,
Great to see you on this one, I haven't seen such an impressive set of fluid dynamics calcs for about 40 years, I too am a Mech/Process Eng. So pleased to get your technical help.

The existing set involves a bore (48m deep) with a standard self-priming centrifugal pump to draw the water and deliver to a head tank at about 4m head. The current water level in the bore is 22m down from the pump (the suction head) so the total head is only about 26m. The

water then flows via gravity down to various distribution tanks where the local communities gather to collect it and convey via bucket to the house compound.

The issue is 2 fold: they would like to supply more families by extending the distribution network and during the dry season they cannot pump sufficient work for the existing demand.

In discussing the factors involved with the community leader he explained the following symptoms. During the latter part of the dry season the volume reduces and they have noticed that the pump gets noisy. Their concern was that the bore was not deep enough, however I don't think this is the case as it appears the bore the bore would not go empty. A well nearby does not appear to go empty and would be in the same aquifer with a similar current water level to the bore.

It appears to me that in the dry season the water level in the bore drops and the suction head gets to great and the pumps starts to cavity and losses its suction. This significantly effects the pump capacity.

I did an internet check on the suction head limits for standard centrifugal pumps and it was suggested that in practice only 26 feet (9m) is possible. I suspect that the self-priming pump changes this dynamic otherwise the pump would not work at all.

So my conclusion is that the water in well drops below

the capability of the pump to lift thus a potential solution is to install a submersible pump with approximately 50m head potential and sufficient to meet Rich's calc of 25 m³ per day (250 gallons per hour). I would suggest a pump capacity of say double this at 50m³ per day (2000 lt/hr).

The idea is to use a 3300 litre head tank on the existing concrete tower (I am not sure if it will carry a 5000L tank or 5 tons).

The elevation of the distribution tanks (1100L) is at an estimate between 30 and 100m below the head tank level. Hard to get a fix on this as GPS is not always available.

The smaller 1100L tanks are dispersed down the hillsides and there may be some opportunity to run a larger pipe to a common point then run smaller ½ inch pipes to the dispersed tanks. This is probably best left to those doing the job unless you feel that a larger pipe from the head tank is necessary to achieve 25m³ per day.

Allan”

It is a real help to have these engineers involved. They can calculate and solve the pump size, the size of the motors needed, and the flow rates much more accurately and faster than before. In previous projects we had just estimated these variables and worked the problems out through trial and error. “Is the pump strong enough? Well let's hook it up and see if it fills the top tank.”

Actually, the Ancut project was put on hold. We had uncovered

some serious problems with the government well. It was not 25 meters deep, but only 17 meters. The stainless pipe for the bore sleeve only went down around 9 meters instead to the bottom as the leaders thought. And the diamond boring bit was stuck, broken off at 17 meters and was still there. Pak Mega originally said that it would cost Rupiah 57 million to fix. He later recanted and said that it could not be fixed. It would cost about 60 million Rupiah to bore a new well. The Foster City Rotary group and the Portola Valley Club OK'd the switching of the funds to do the project at Songis. So we will accept the losses, return the system to the way it was, and switch the remaining funds to Banjar Songis. We will re-visit the Ancut problem in a follow on project when we obtain the money.

PROJECT 13

Banjar Songis is actually our 13th project. It was funded by the RC Foster City and by the RC Woodside / Portola Valley which are both in California. They provided a total of US \$3,000 and US \$500 respectively. It is the alternative to the Ancut project above when it was decided to switch locations. The plan was to use an existing well and pump the water to a top tank with a submersible pump. 125 families (approximately 650 to 950 people) live in Songis Village. The first meeting with the leaders of Songis was with a 'holy man'. He was rather scary with his dreadlocks piled up on his head and covered with some sort of cloth. He was complete with a wooden bead necklace and a bottle of *arak*, local moonshine, which was full of some sort of leaves. This he offered to everyone present, but we politely declined. He was dressed in only his wooden beads and a pair

of shorts. He was to be our first guide to where the top tank was to be located. He turned out to be a rather nice guy and father to a whole passel of children. There is an existing well that provides clean drinking water to the entire village. At that first meeting, a man who is 65 years old and owns the well said, "What happens when I die?" He later provided a letter with all of the proper stamps which in fact donates the well to the village in perpetuity. We provided an electric motor and pump to the existing well, installed a top tank and restructured and added five distribution tanks. Plastic distribution tanks will replace used barrels (of various types) or ceramic jugs for storing water. Each distribution point services 10 to 15 families. It will not only save time and energy of those who carry the water, but mitigates water borne pathogens. The idea is to pump water from an existing well to the large tank at the top and adding a set of 4 or 5 distribution tanks. Also to improve the shower facilities at the well, we added a 1,100 liter tank to the existing, but unused, shower facility. This is one village that could use a village peanut shucking machine. They grow a lot of peanuts in this place. We noticed a lot of peanut shells littering the location of one of the distribution tanks. At one of our trips to check the progress of the construction, Ping and I had a good conversation with a shirtless woman who had come to the well to collect some drinking water. She lived near the top of the mountain and told us that her son, who lived south of Ubud, had paid for a pump to pump the water from the well all the way to his mother's house. But the pump was not strong enough. The pump was later sold to some rather wealthy villagers nearby. She was also the source we used to determine if the villagers would actually use the shower facility

if we improved it. It is simply amazing what good information one can get from the women by themselves, when the leaders are not around. Bill and Judith Schneider, who are responsible for obtaining the money from their club in Foster City, were most interested in getting a clean, simple project completed. In March of 2015 Bill Schneider presented a certificate to Ketut 'Ping' Suardana which was signed by the Presidents of the four Rotary Clubs involved. They are RC Bali Ubud Sunset, RC Foster City, RC Woodside / Portola Valley, and RC Colorado Springs Interquest. This was for service above self for the last 10 years, working on the Rotary water projects in the Amed area. It was a nice event and held at the Maya Hotel with Ping and his entire family in attendance.

PROJECT 14

The following is part of a message I sent to some friends in Tasmania this evening.

We are starting our 14th water project in Karangasem. The first 12 projects were all in Desa Bunutan. Lipah beach is behind and up the hill where Hidden Paradise Hotel is located. Actually the village of Lipah (where we did a well project) is an isolated group of families which are actually part of the Banjar Lean. It is one of the 10 hamlets (Banjar) of Desa Bunutan. The other two projects are Banjar Linggawana which is in Desa Kerta Mandala and Banjar Ancut which is in Desa Tista. Both of these projects are in Abang District and are located near the area we call Amed. The Ancut project is to improve the

government water project for the village. We will add a bigger submersion pump to the existing well, pump the water to a larger storage tank and distribute same by gravity to eight or so distribution tanks. Funding will be done by the RC Foster City, in California. RC Bali Ubud Sunset is the host club. We delivered a letter of understanding (MOU) to the Sunset President this evening.

Looking forward to having you on board for these worthy Rotary projects.

Rich and Danielle

The Aas Deep Well was the first part of the Aas project and is known as Project 14. Marilyn Carson, chair of the projects committee, told us that the RC Ignacio in California was looking for a deep well project. Did we have one? We sure did. They contributed US \$6,000. The drilling of the well near the coast caused us a few problems and took forever to finish. It was originally planned to dig about 40 meters deep. But the drilling company found that they were drilling through solid rock. Their original estimate of a month turned into about a year and their estimate of two meters per day turned into about ½ meter per day, when they drilled. They used a total of three diamond bits instead of their plan of using one. When they did the pump test at 40 meters there was not sufficient water. So they dug an extra 10 meters and found a good supply of water. Pak Mega, the owner and supervisor of the drilling company, said that they did not make any money on this project. In fact they had given us a discounted price for digging the well because this was a social project and not a commercial project. They finished in August

of 2014 which is almost two years from the original plan. They had plenty of down time due to motor failures and replacing the diamond bits. The plan is to pump the water to large storage tank near top. The cost of the deep well and the necessary pump house was about \$6,500.

In the middle of June 2015 we held the completion ceremony for the deep well portion of the Aas project. It was well attended. Present were the village chief and the ceremonial chief. A religious ceremony by the local priest was conducted at the well site and at the large storage tank. This was then followed by a meal in the *bale banjar* (ceremonial gathering place of the village). But it is not yet finished. During the first part of August we determined that the pump was defective. The villagers installed the pump and it did not work. Ping got his electrician from Hidden Paradise hotel to check it out. He correctly diagnosed it as having a faulty wiring in the motor. This is after we put the motor back in the well and took it out again with its 50 meters of pipe. He then hooked it up directly to the electricity and it just clicked. Allan Starr, who understands these things, was supervising. We finally took the submersible pump, a Danish built Grandfos pump, back to the store in Ubud where we bought it. The lady who owns the store called the Grandfos technician in Denpasar who came the next day. His diagnoses was the same. Although we had a warranty for the pump, we chose to get a new one for 2,000,000 Rupiah rather than wait a minimum of 6 months for Jakarta to fix the old one. No one in Bali can rewire the motor. We took the 'new' pump to Banjar Aas and lowered it in the well. It sputtered and 'made' less water than the cheap pump we had originally bought

for Ancut, moved to Songis and then to Aas. Grayden Johnson, an Australian electrical engineer, diagnosed the problem as not enough power at the PLN installed electrical panel. The Kepala dusun, Pak Wayan Lara, will go to PLN and ask them what their solution is. It needs an upgrade from 3 kilowatts to 5 kilowatts of power. The pump ran fine when we hooked it up by a long extension cord to a *warung* that had 5KW of power.

PROJECT 15

The third part of the Aas project is the Beluu Extension referred to as project 15. Since the well is strong enough to supply water to more families, we have invited the Kelompok Beluu to join the system with their 40 families. *Kelompok* is an Indonesian word meaning group. So this is a group of families called Beluu. The RC Bozeman Montana has funded this effort with a grant of \$1,500. Kelompok Beluu is a group of forty isolated families that fall under the control of Banjar Aas which is a small village in Desa Bunutan, Karangasem, in northeast Bali. It consists of about 250 to 300 people. All of the residents are subsistence farmers. The plan is to connect to the bored well system of the Village Aas. The well system, just completed for Banjar Aas, is strong enough and has enough water to accommodate these 40 families. We will add a series of four plastic tanks of capacity 1,100 liters each which is one tank for approximately 10 families. Each tank is to be placed on a concrete pad. All planning, construction, carrying of the supplies are to be done by the local villagers. Rotarians and Rotaractors will purchase the supplies and insure they are delivered to the construction area. The only expenses are the construction materiel, pipe,

tanks, and the signage. Stencils will identify each tank with a Rotary symbol and the names of the Rotary Club Bali Ubud Sunset and of Rotary Club Bozeman Montana.

On 30 June 2015 we climbed past the houses of the village to determine if a spring at the top would provide enough water. Two Rotaractors and I spent the night at Pak Ping's house. We were up at 0400 and went to the village chief's house. At about 0630 we were on the mountain and began our climb. It would offer a better solution for the Beluu addition to be able to get their drinking water from the spring and it would save us quite a bit of pipe. It was a rather difficult to get to the spring as it took us more than 5 hours to investigate. It was a technical climb as it involved going up a steep face and it took the better part of the day. The local people left their sandals at the bottom and climbed with bare feet. I ruined my new pair of tennis shoes, having earlier ruined my good pair of hiking boots. The calves of my legs caused me to walk rather gingerly for three days due to the technical climb. Danielle would call it a limp. But, alas, the spring was not strong enough. It only ran at about 20 liters of water per hour and, would not be enough for the 40 families of Beluu. This is about half way through the dry season and we estimated that the spring would be completely dry by the end of the dry season. So we are back to the original solution of tying it into the well at Banjar Aas.

In August 2015 we successfully hooked up the distribution system of Aas and filled the top tank. Grayden, his wife Wendy, Ping and I then walked to Kelompok Beluu and waited while a tank in Beluu was filled. This is because some of the pipe

has been laid and some of the distribution tanks have been installed. The top tank of Aas will then allow the addition of the 40 families in Beluu to join the system.

On 3 January 2016 we held the 'hand-over' meeting for this project. It was all men from Banjar Aas and from Kelompok Beluu. They had finished the project while we were in America but were glad to have us back for the completion ceremony. Pak Kaler represented the Rotaractors while the current president of RC Bali Ubud Sunset, Allan Starr, represented the host Rotary Club. It was a fine completion ceremony with many (long) speeches. We later climbed to the project area to inspect it.

All of our previous efforts are still working despite the concern over the above ground plastic pipe. We hope to get a minimum of 10 years from the pipes. This includes pipe from both the gravity fed systems from fresh water springs and the wells by the coastal road. Of course the tanks must be scrubbed out and cleaned from time to time depending on the weather, humidity, and other considerations. That goes for both the concrete tanks and the plastic tanks of various sizes. We have learned that cheap plastic faucets, *kran*, do not last long. They have all been replaced with metal faucets.

The Old and the New Rotary Club

It is sad to see a club disbanded. For a time there were two Rotary Clubs in Ubud. The new club, RC Bali Ubud Sunset, was chartered in July 2007 and grew out of a frustration with personalities. A resentment and a coffee pot is all it takes to start a new meeting, barring a few hoops to jump through. It is difficult for Rotary leadership to remember that Rotary groups meet many different and diverse needs. There is the type of person who is interested in business networking. Another type of person is interested in conventions, collecting badges, and enjoying the various levels of the club, the district, the area, and the head office. There is another type for which Rotary meets their social needs. They enjoy the fellowship and friendships formed in Rotary. Another type is the 'check writer'. He is willing to put his accumulated wealth to good purpose and is

willing to sign a check. Or there is the type that is good at fund raising, getting raffle prizes for special events, and putting together matching grants. And finally, there is the type who enjoy various domestic and foreign projects; getting the funding, filling out the paperwork, and mostly about getting the project completed. Many times the membership will consist of people who are interested in more than one of the above types. But it is important to remember that Rotary is a volunteer organization. Rotary depends on all types. There are no paid staff at the local level where the work starts, the planning takes place, and the 'business' of Rotary gets done. That said, the idea of seeing the old RC Bali Ubud fold was heart breaking. To date, only three people have transferred their membership from the RCBU after it closed to the RCBUS. They are Danielle, Antje von Lukowicz and Ron Dixon.

None of the old club's programs have transferred to the new club. We tried to keep alive Ron's idea about a 10 year Bunutan Rural Development Plan. But it has been rejected by some members of the RC Bali Ubud Sunset for the simple reason that it was 'not invented here'. The Health and Disease portion was taken over by Ray and Sue Bishop. Several times and in many ways Ray and I tried to get the Sunset Club interested in this portion. But to no avail. Ray is a member of the Hope Island Club in Australia and Sue joined as a new member of RC Bali Taman. Together with their clubs they have made excellent progress in the area of health in the Amed area.

The old club had a money making fund raiser in the Halloween parties. They were excellently attended and well executed. The

local Balinese went all out for this all-American type of event. Costumes were well planned and enthusiastically worn. The board decided to give the money that was made in all three of the Halloween functions to the Muntigunung project. Herein was a problem. The rules of Rotary frown on allowing money to be deposited in a private account. The Muntigunung project was fully funded by a Swiss foundation. The only way that Daniel Elber could think of handling the money was to have it be deposited in his private account. He would withdraw the money and take it to Switzerland where it would be deposited in the Swiss Foundation and then used in Muntigunung. The treasurer of the Rotary Club, who was a Dutchman, was adamant that this not be the way to handle the club's money. The unfortunate thing was that they were both correct. But personalities got in the way and it became a sophisticated donnybrook. The solution was to donate all of the money to the Amed Water Projects. The club treasurer, who was in his late 80's and in ill health at the time, came by our house and said that he had made out his will and had some Balinese chap as his executor. He had pronounced himself as President and transferred all the club's money into his private account. Now, I could just imagine, if something happened to the old man, my going to a Balinese man whom I do not know and saying, "By the way, that 137 million Rupiah that you have in the bank belongs to me." We made quick arrangements to withdraw the money and hold it for the Amed projects. Sadly, the old man did die a few weeks later.

Whether one club or another gets credit for the water projects is of minor concern. What is important is that the projects will

benefit the people, no matter the source of the funding. Since the folding of the old club, we have continued the projects in the dry hills of northeast Bali. We are able to do about 2 villages per year. Some are simple and some are complex. They are all small projects that operate under the radar, so to speak. That way we do not attract the sticky fingers that this emerging country is famous for. The only way we can solicit Rotary donations for these small programs from clubs around the world is through direct donations and District Designated Funds, DDF. That is until a Canadian member of the Sunset Club proposed a Global Grant of some 45 plus thousand dollars. We are in the process of anchoring this program with the Sunset group and submitting the grant proposal of the Rotary Clubs in Toronto who will be the main funders to Rotary International in Illinois. We do hope that it will be approved.

On Good Friday, 18 April 2014 I went to Amed by myself. Don Bennett had back problems and was not able to go. So I got to talk to Ping, one on one. We met at his house. Juli, his wife, gave us some *dodol* that she had made to sell in the market. Wow, was it good. It is a Balinese candy made from sticky rice, coconut, and palm sugar. Ping was given a copy of Allan's concept paper for the Canadian Global Grant. For the health and sanitation part he was explaining that transportation was the main issue. Funding a nurse's salary for 6 months is not a sustainable item. But a used van or car to be used as an ambulance is very sustainable. We don't need a full blown ambulance which is expensive. The van could be used to transport medical patients to the hospital or to the clinic. It could also be used to transport their equipment and medicines to the villages and used as a

transport to get some of the children to school.

The economic development portion was of great interest to Pak Ping. His opinion is that goats are hard to care for. Cows would be better. He liked the ideal of 'paying it forward' whereby one calf (or kid) would go to the next family on the list; one offspring for themselves, and one offspring to the next family. This would continue over a period of 3 years or so. We spoke about Muscovy ducks and how they are very easy to care for. Much easier than chickens. The villagers can sell the duck eggs for more money than chicken eggs.

Then we went to the *kepala dusun's* house, (village leader's), in Banjar Aas. We discussed with Pak Wayan Lara about using *banjar* electricity when the well is dug to check the new well volume and flow. Then to meet with Pak Mega at the well site. He needs a new diamond bit because we are drilling in rock. So we paid him Rp 10 million out of the money that we owe him. The total that we have given him is 18 +10 for a total of Rp 28 million out of the Rp 60 million that is the contract price. He mentioned that he had just completed the hotel job which was a similar project for Rp 160 million. But this is a village project. He may be a good businessman and real up-standing guy but he is not easy to believe when he talks.

We then went to Banjar Songis and had a great conversation with a woman who had come to the well to bathe and to get water. She told us that she lived high on the mountain. Yes, the villagers would use the bathing facilities. Perhaps we can add to the Canadian Grant a budget item for a tank, a roof, and repair

the bathing facility. She also showed us an abandoned squat toilet that has been overgrown by the jungle. It, too, needs a roof and door and a fix of the walls. Maybe it would be better to start over. But this woman seemed to understand that we are providing them with a hand up rather than a hand out. Sometimes that thought can be difficult to get across.

The Audit

In February 2014 we got word that a team of auditors from TRF would be visiting Bali. Of the five projects to be audited, three were the responsibility of RC Bali Ubud Sunset. And one of the projects was one of ours. It was the Batukeseni II project which was completed in 2010. PDG (past district governor) Philip Hadley from Australia and Rajesh Ananda from India were the auditors. On Friday, March 14th we took them to see the project. Ron Dixon drove his big car which holds 8 passengers. Allan Starr and I met them on the road to Gianyar at 7:15 am. Ron had picked up the auditors from their hotel on Jalan Suweta and they were only a little bit late. It is a 2 ½ hour drive to the project. After a little bit more than an hour, we stopped at Puri Pandan restaurant in Candidasa for breakfast. We always stop there for breakfast. They have the

best *nasi campur* in Bali. Now that is my opinion. *Nasi campur* simply means mixed rice. It traditionally consists of white rice and anything the restaurant has left over. It is sort of like comparing who has the best chicken soup or meat loaf. Ping was told to check out the project in advance of the auditors coming but he was busy with religious ceremonies on the day that they came. So we took the auditors to a project that I had not seen in several weeks. The system had been working for almost four years and I was concerned that it would be a mess. We first went to the house of Pak Nyoman which is near where we dug the well. The two pumps were working but, as noted by the auditors, were covered in grime. Well, they had been busy pumping every day for almost 4 years and were certainly rather dirty. We had warned the auditors that it would be a rather strenuous climb of a little over an hour and that they should wear some stout shoes. We were then surprised to learn that the government had constructed a road to the very top tank. So the six of us drove (careened is more like it) to the top. It was a bumpy, long, but welcome ride. We did not have to help push the car up the hill. It did save us a rather long walk. We were told many things about the audit. The auditors seemed pleased with the project and that it appeared to them to help a lot of people. That the conclusions of the report was to be a secret was one thing. The findings of the report came to us in late May and it was a bit damning. Two issues for our project stood out. One was that the money had a rather shaky audit trail in that the project was done with cash. The other was that we had not affixed signage to the project. No Rotary symbols nor names of the clubs involved were fixed to the tanks, the well house, nor the pipes. The big news was that the project final report would

be reopened and until a stewardship plan was written and the signage was added, the club would not be able to open another project. When I briefed Judith and Bill Schneider on the day's events, they immediately said that this was not an audit, but an investigation.

While this is only one of Marilyn Carson's worries, I got the following email:

From: Marilyn Carson

To: Richard Foss, Ron Dixon, Allan Starr, Sue Winski

Sorry, had to switch from Chrome to IE to make the attachments attach.

Allan, I understand from Danielle that their computer died. Could you please make sure Rich gets copies of the emails just sent and the attachments?

Thanks,
Marilyn

To which I replied:

Dear Marilyn,

First, there is nothing wrong with my computer. Second, there are several factual errors in the report by Rajesh.

The RC Bali Ubud ceased functioning in July 2011. This was long after the completion of this project in late 2010. Mary Kay Neufeld was president, Ron Dixon

was president-elect and Danielle Foss was secretary when the Batukeseni project was done. The project was conceived by the RC Bali Ubud, but it was not dissolved at that time. It was not finished by the Sunsetgroup. The project was done with the efforts of Daisy Yahsintha and Ron Dixon, with a little help from me, and a lot of help from Ping. The project committee of the RC Bali Ubud was still active and was informed of the progress. Rajesh was never told (as far as I know) that an active project committee was involved. The project committee of RC Bali Ubud was, in fact, *defacto* members of the project committee of the Sunset Club. They proceeded with the spirit of Rotary helping the community, not who gets credit for the Matching Grant. I know of no Rotary rule that excludes committees from having other Rotarians or anyone from membership.

My club in Colorado contributed 15% of the total amount. But I see that none of RC Colorado Springs Interquest people, nor their District 5470, is included in the addressees. Only the Ignacio club is included. They, too, contributed 15%.

I mistook your comments, when the project was being conceived, as the D5150 had a minimum of \$10,000 and that was why you added the two toilets. And I was surprised when the auditor asked us why we walked away from \$8,700 from TRF. He said the reason that we did not receive the TRF matching money is because we never asked for it. Ron and Mary Kay proceeded with the idea

that the California clubs would supply Direct Donations. That is why I hand carried the \$1,500 from my club. We were later told that the Interquest money had to be sent to Illinois to be a part of the MG. In communication with the Interquest people they sent an additional \$1,500 to TRF and asked me to hold on to the money I had and return it when we came back to Colorado.

We were never asked about the competitive bidding process for supplies. We did compare prices of the major components of the project in at least 3 of the local hardware stores. Pak Ugu was selected because of that process. He was willing to give us a better price for plastic tanks and pipe. Daisy and Ping made that determination. They were not written competitive bids. To do so would encourage *bule* (western) rather than local prices. This begs the question of how we can do business in rural Indonesia and still meet the Rotary standards. Yes, checks when we can. Wire transfers when we can. Thumbprints on our own receipts when all else fails. I would like to know which vendor, or vendors, told the auditor that they would accept a check and deliver the materiel as soon as the check clears.

Signage is a two edged sword. My personal belief is that signage is not intended to show 'how good we are'. In all the years we have been working in this area we have only seen one *Yayasan's* signage other than the failed water projects of RC Jimbaran and the failed toilet project of RC Seminyak. Both failed projects have (quietly)

been brought to the attention of the respective clubs. The signage on the trash receptacles in Gulinten and in Amed by the Yayasan Peduli Alam (the world cares) is simply a stencil with their name. Several projects have been sponsored in this area by organizations, both philanthropic secular and Christian groups. None of them have signage. In talking to the people we have found who did what and how come.

But what is to be done now? We will certainly affix signage to the project, take photos, and submit them to you. Please inform whomever that the audit report is only good if all the players can see what the auditors have done. We are willing to play ball and by the rules. But we can only learn from our own and others mistakes. The rules must be clearly defined. I like Rajesh's comments; "That TRF is knowledgeable that the people use the system, are grateful, know who did the project, and that it is a very worthy project and helps many people".

How it was done is important. But what was done is more so.

Rich Foss

Very well done. You sound a tad bit peeved :-)

Allan

From: Marilyn Carson

To: Richard Foss

Hi Rich,

I've been so engrossed in responding to the blankety blank audit reports I haven't had time to think about your deep well and that it didn't produce water. It must have been a big disappointment for you but don't let it get you down. There's plenty of time to come up with another plan...thanks to your tireless efforts and RC Ubud!!!

What I'm thinking is that the costs of drilling this first well can be borne by RC Ubud. That gives you Ignacio's \$6,000 to try again when you return from the states.

I actually was also thinking it might be worthwhile to consult a balian to point where water could be found.

Fondly,
Marilyn

Dear Marilyn,

I'm not sure where you get information about the project in Banjar Aas, but it is mostly wrong.

The well at Aas is a project for and by the RC Ignacio. It is not now nor ever has been a project of the defunct RC Bali Ubud. The only question is the pump house. If the Ignacio money is enough to finish the project which includes drilling the well, buying the pump, the motor, connections, etc. with what is left over we will

build a well house. And affix a proper Rotary symbol. Currently the well, we were told on our trip to the site on Sunday, is at 27 meters in depth. He is drilling mostly through hard rock and hence he is not keeping up with 2 meters per day as he had hoped. Our contract, and our guarantee is for 2 cubic meters of water per hour over a two day period. When Pak Mega did a water test at 25 meters, it did not produce enough water. He must dig deeper. He is prepared to dig as deep as 40 meters. In this area they usually find sufficient water between 25 and 30 meters. He has already worn out the new diamond bit and asked for an advance of another Rp 7,500,000 (about US \$660.00) which we approved. He came to the house at 8 pm Sunday to collect the 7.5 million. You have the receipt for that amount and the receipt for Rp 10,000,000 dated 17 April 2014. Pak Mega said he would finish in another 10 days. To be sure, we asked him for 500,000 Rupiah per day penalty if the project goes over 15 days from last Sunday. He has agreed to this.

Since you refused to allow the Ignacio money to cover the down payment at the time of signing the contract, we have used the Halloween money to cover that amount. We cannot wait for you to make up your mind how we will spend the Ignacio money which is in the bank account. The cost estimates that the Ignacio group approved were for US \$6,000. I have only been told that Ignacio wired the money and that money was deposited in the BII bank. I have never been told what the exchange rate was nor how many Rupiah are available

for this project. As you know the exchange rates change daily and the material cost change as well. You now have receipts for Rp 17,500,000. We need that money now. As far as the *balian* is concerned, I would rather depend on the professional well drillers to select the locations. I have heard and seen some amazing stories of the power of the *Balians* but finding one who knows what he is doing is rather problematic.

The RC Club of Boseman Montana has sent \$1,500 for a different part of the project and they are waiting for a response that the money has been received. I have not received notification that this money has been deposited in the BII bank or the exchange rate which will tell us how much money is available for their project. Only that an unspecified amount from Boseman was received at the Rotary Club Ubud Foundation in California. That was more than two months ago.

I will turn over all the records about ongoing projects to Allan while we are in the States from 27 June until 11 September. Fortunately he has been all over Banjar Aas and is familiar with all the problems. I feel good about leaving the projects in good hands while we are gone. Both Allan Starr and Bill Schneider are knowledgeable about Aas. Ron Dixon is back in Canada and will be out of pocket until October or so.

Rich Foss

From: Lesley Bredvik

To: Richard Foss

Thank you so much for all the project info. I have sent the money status to the appropriate club members.

Any idea how much the joint pump house Rotary identification will be? Is it a major hassle to do it? The only thing of this sort that I've done was with the stencils that were sent to Japan to be put on to fish transport trucks after the tsunami.

When the project completion is celebrated, please send any photos that you have. In the meantime. Is the well drilling completed? I would like to keep the club informed of intermediate successes and on board with this project to encourage further cooperation between our two clubs for additional projects.

Thanks so much!

Lesley

Hi Lesley,

I was just reviewing some older emails and found one of yours that I don't think that I gave you answers to your questions. The following is just for your information. The Aas project has many funders. It is a big project that was started over a year ago. The top tank has been installed, the pipe laid to that tank, and work on the well has begun.

Contributors are as follows:

The well is funded by a US \$6,000 grant from RC

Ignacio in California.

The pipe to the main tank is funded in part by a private donation of \$1000 Canadian from Sylvia McGroarty, a member of RCBUS but living in Toronto. This amount is added to Henry and Eilane Eiler's amount of \$500 Australian. The remainder of the pipe and some of the distribution tanks are from RC Colorado Springs Interquest with their \$1000 contribution.

Your club's donation will expand the program to include the group of families at Beluu and will consist of pipe, distribution tanks, and the necessary stands, connections, and faucets.

The remainder of funds will come from the Halloween Party monies donated by the, now defunct, RC Bali Ubud. RC Bali Ubud Sunset is the host club and will insure an accounting of all funds, including those funds that go through the 501c3 Foundation in California. Your club funds are sitting there now. They will (or have) wired them to the bank here in Ubud that is for the Sunset Club's projects.

Essential people:

Sue Winski, Pres RCBUS,

Philip Yusenda, Pres elect RCBUS,

Allan Starr, Mbr RCBUS, Project Chair,

Ron Dixon, Mbr RCBUS and PP of RCBU.

Marilyn Carson, AG District 3420 and Projects Chair
RCBUS,

Ketut Ping Suardana, Mbr RC Tirta Gangga,

Rich Foss, Mbr RC Colorado Springs Interquest,

Identification:

There are no plans to place Rotary symbols on the tanks or anywhere else. We could put a joint RC symbol on the pump house wall if you like. The only other idea would be to stencil on the plastic tanks the Rotary symbol and the names of the Rotary Clubs. But they are a long way from any road or path.

Sorry that this took so long. Marilyn (currently in California) has emailed me that your money is at the Foundation in Calif. Many thanks for the people of Banjar Aas. It will be delivered soon. Thanks again,
Rich Foss

Dear Marilyn,
Thank you for your response.

The two projects which you mention, I think, are the Batukeseni II and the Gulinten II projects.

The first one, Batukeseni II, has been accounted for, final report filed, and all the donors were thanked and sent a copy of the final power point presentation. You have copies of all the receipts. The list of donors was RC Bali Ubud Sunset, RC Colo Spgs Interquest, RC Foster City, RC Ignacio, RC Menlo Park, and D5150 from California.

The project at Gulinten II donors included RC

Bridgetown, RC Colo Spgs Interquest, and the Halloween money. Each Rotary Club was thanked, given interim reports and given a power point presentation at the conclusion. The receipts for spending this money is what I think you are asking for. These I have retrieved from the files. This project was completed in April or May of 2013. I can make copies of all of them for you. I received all of the money in Rupiah. The project took about 6 months to complete. I was aware only of the obligation to report to RC Colo Spgs Interquest and RC Bridgetown. I was unaware of your requirement to report to the Bali Ubud Foundation in California since the Interquest money came through them.

These are the only two projects that I think involved the RC Bali Ubud Sunset or the Bali Ubud Foundation in California. That is, excepting the deep well project for RC Ignacio, California and the Kelompok Beluu project for RC Bozeman, Montana and the RC Colo Spgs Interquest monies. These are part of what we call the Br Aas project. Sylvia's donation was a completed part of this.

I can assure you that I can account for every penny donated to the various projects, and more importantly can assure you that every penny is used for the people in NE Bali. If you want to put different accounting procedures on the Foundation Money or any other donations that you are involved in, then I must know what you want. I think the problem is that I 'pool' the money. So for example, I cannot tell where exactly the Menlo Park

\$800 donation was spent for in the total of the \$10,000 Batukeseni II project. This was the same problem with Sylvia's private donation of Canadian \$1,000 which was used in Banjar Aas. It is the same problem with the Interquest donation of US \$1,000 which came through the RCUF for the Aas project. I can 'unpool' the various donations if that is what you want. But that is being rather disingenuous. I have hitherto simply made up a chart in the final report which list the amounts that various donors have given and the total amount and shown what the project actually did. Never have I listed what an individual contributor's money bought in terms of so many feet of pipe, etc.

I was not aware that Ignacio had sent \$9,000 for deep well projects. When we gave you the estimate of \$6,500, you said that the most they would send was \$6,000. We then revised our estimate down. I was unaware of the Bangli well project. But now, we are already using the money from Ignacio. We took on these obligations when we heard that the Ignacio money had arrived in Ubud. The deep well should be completed in a couple of weeks. Then we must buy the pumps and motor, hook everything up, and build a well house. It does not help to hear that you have 'frozen' all the funds. Perhaps you will reconsider. We do need the funds.

Hope this helps.

Rich Foss

The above is to show some of the problems we have with too many chefs in the kitchen. The problem is not putting together the projects, or raising money for village water problems, or constructing the system. The problem is the stewardship of the funds once the money is deposited in the Rotary Club's bank account. There are various ways the money comes in. Clubs and private individuals can contribute directly. If one wants to get a tax write off, the clubs or private persons can send their check to the Ubud Foundation (501c3) in California. There is a similar organization in Australia for this purpose. The second way is through Rotary International in Illinois. This works for multiple clubs that want to use their District Designated Funds and get Rotary International to match the funds with a complicated set of rules. The third way is to get a Global Grant through Rotary. This works for larger projects. I think the minimum is US \$30,000. As I have previously mentioned, the larger the fund, the more 'sticky fingers' get involved. The safe ground is always to account for the money as if it were a Global Grant. In support of the Rotary Foundation, they have a finite staff to manage all of their projects. It just makes good sense to have fewer grants that are larger. The host club must follow a number of rules, have the local club certified, and disburse the money according to the rules.

Of course this does not fit in with the banking rules of Indonesia. There are many reasons why it does not work well in Bali. A truck driver in Bali delivering a load of sand just wants to get his IDR 600,000 (about US \$55). He often will not have a receipt book and is, more than likely, illiterate. He

just wants his money when he dumps the load of sand on the coastal road. We are still wrestling with this example problem. Small shop keepers pose a different problem. They rarely have bank accounts to which one can wire transfer the amount. And they rarely keep records or receipts which would stand up to an audit. And they often ask for a deposit for a portion of the amount. The rules about getting the lowest price is rather funny. We always let local people shop the various suppliers. This way we get the local prices which are always cheaper than the 'tourist' price. If we followed the strict guidelines of Rotary International we would have a fixed price, but it would be the 'tourist' price.

There is a big difference between using Rotary money to provide a flugelhorn to a high school marching band and with the same amount of money to provide drinking water to an entire village for the very first time. I suspect that both are necessary. But the difference is in finding Rotarians who will make the effort in remote, and sometimes hard to access, areas. Schools are most often near an access road. And access roads make it easy for oversight of the project. Often the current thinking is, "What can we do with our money?" Clubs are often interested in donating their money to projects like Women and Infants' Health or Water and Sanitation. These projects are proposed based on their end result. The Global Grant system just makes the problem worse. There is no provision for smaller projects that involve the matching funds from Rotary International. One can bundle together several small projects to meet the dollar requirement of the Global Grant. The first thought seem to be about the amount of money. Then comes the plan, written

so that it matches closely the amount of money available. Little thought is given to the relative need. Whatever that is. The process takes a long time. Accountability of the funds, once approved, is cumbersome. There is little room to change the program. Exchange rates change and the prices of materiel goes up. The very rural people in Bali are often not literate and are often shy about asking for help. The squeaky wheel may get the most grease but the most illiterate people and often the most inaccessible people need an advocate. The problem seems to be the identification of needs. There are a plethora of organizations with money for international projects. The problem is in the identification of the worthy projects, applying the international funds, finding someone to work in the often remote and inaccessible area, and supervising the project to completion.

Not to mention the difficulty in getting money from the Rotary Club when it does arrive. Many months are wasted in just getting the money from the club. Sometimes this can take several months to a year or more. Herein lies a dilemma of sorts. We will discuss with the village leadership the need for a water program. Then we solicit the necessary funds after we have put together a proposal which includes a budget. The money is deposited in the club's bank account and we draw on that money when we have the receipts. This is the way it is supposed to work. But who pays the shop keeper and then obtains a receipt to give to the project's committee for payment? Of course, the construction material fluctuates in price. The exchange rates between Rupiah and Dollars change as well. The need may change over time. But the real problem occurs when

the local club will not, for some reason, release the funds. The perennial problem is one of who pays for the material between contract, delivery, and the receipts.

The Accident

Well it finally happened. On Sunday we (or I, for want of full disclosure) had a traffic accident in Bali. At about 4:30 in the afternoon a young motorcyclist and I collided on the highway. Whether I hit him or he ran into me is a rather moot question in a country that has so very few insured drivers. Perhaps that explains why there are fewer accidents given the chaotic nature of traffic here in Bali. The people have little insurance and there are not many lawyers. I have always joked that it is easy to drive a car in Bali. One must first understand a flock of birds and figure out why they don't ever seem to collide. Then one is ready to pilot a car or a motor cycle in this emerging country with narrow roads and fast drivers. Always a lot of pedestrians. Although we see fewer horse drawn *dokars*, cattle, pigs, and oxen on the roads we do see a big increase in cars and motorbikes. There is little

or no improvement to the local transportation infrastructure. And the roads have potholes galore. The local person or persons in charge of the roads does not seem to understand that drain holes, potholes, and *penjor* holes (the Balinese ceremonial poles of bamboo) make it quite difficult to drive on these narrow roads. One cannot see the potholes in the rain. This is dangerous for the motorbikes. We lost a good Danish friend who was killed when his motorbike hit one of the potholes in the rain. With the standing water on the road, he could not see the hole beneath.

But back to the nitty gritty of the details. His name is Putu and is 18 years old. He is a first year university student in the capital city of Denpasar. His grandmother had just died and his father had called him and told him to please come home for the funeral. He was doing just that, driving from his university in the capital city to his home in Klungkung, close to home after a two hour motor bike ride. Allan Starr from Australia and I were coming back from a long day working on the water projects. It is about half way between on our 2 1/2 hour drive from Amed and to Ubud. We had decided to stop in a very famous seaside fish restaurant near Goa Lawah (bat cave) to pick up some of their delicious fish sate. It required a turn across the traffic into the parking lot.

After waiting for the traffic to pass, I turned towards the parking lot. Of course I had the turn signal on. Seemingly out of nowhere came this motor bike. We collided. The right front corner of the car collided with the side of the motorbike just behind his right leg. He was doing 40 to 60 kilometers per hour while I was barely moving. The bike spun into and all

but destroyed a small juice stand in front of the restaurant. I couldn't believe how the driver sustained such minor injuries. Only a bruise on his right arm and a small cut on his right little finger. I was certain that the crash would have taken his life. But he immediately got up. He seemed more concerned about the smashed laptop in his back pack than he was about the smashed motorbike. No bystanders were injured, no patrons were injured and only the juice stand owner's laundry lady will know how close he came to being injured.

The philosophy here is that if you are a western tourist, the accident would not have occurred if you were not here. So who is at fault? Never involve the police and don't even think about involving the courts.

The unfortunate fact was that the motorcyclist's father is a policeman. He was the first person that Putu called. He was there within minutes. He immediately called two police sergeants and then a civilian clothed person, who immediately took charge. Then a red shirted man showed up who had the word *Kopassus* on his shirt which identified him as from the special military forces. *Kopassus* stands for *Komando Pusukan Khusus* or the Army Special Forces. Unlike our military they are responsible for internal security. They are the heavy duty dudes. As it turned out the driver of the motor bike's father was the most junior of the policemen and the civilian clothed policeman was his uncle. The knuckle dragging, Neanderthal looking man with *Kopassus* on his red shirt said nothing. We are in big trouble now.

Allan had the good sense to call his driver, Dewa. I called

Made, the owner of the car. Both of them told us not to involve the police and when told that the police were already involved, they told us not ever to go to the police station. Dewa talked by cell phone with the policeman who was the father and then the detective in civilian clothes. I think he made several calls to the various policemen. I called Danielle and told her that we would be home a little late; that there had been an accident but everyone was ok. As I was talking with her, my phone went dead because I had run out of *pulsa* (minutes). She called Allan and with a garbled phone connection Allan told her that the car had a bloody nose. That was when his phone went on the blink and her call was disconnected. She thought that I had the bloody nose and assumed the worst.

But back at the scene, the police were discussing what to do. Their options were to impound the car or to hold the car's registration. Luckily they chose the latter. They also held Allan's driver's license for some inexplicable reason. They never asked, nor checked mine. When asked for some information for the accident report, I showed them my *Kitas*, or long term stay permission. They never asked to see my passport, driver's license, rental contract, nor insurance papers. They never asked me what had happened. I am not sure of the details but Allan asked the policeman in civilian clothes if he knew Pak Oka. Oka is the chief of the Police Anti-corruption Department. Oka is also uncle of Allan's driver and brother in law of his night security man. For some reason they asked Allan for his driver's license and kept it. Perhaps to check with Pak Oka and to verify that Allan knew this very important person. It seems to be important to the Balinese to determine who they are dealing

with. And you never say an unkind word about any Balinese person because you are probably talking to his cousin. I think that little act saved us much grief. Everyone was very polite from the beginning. The driver of the motorbike, the police, the Army person and the civilian clothed boss were all very professional and courteous. We agreed to meet the plain clothed detective at the Regency Police office in Klungkung the next day at 10:00 am. We drove the car home. It was drivable but had only the left headlight which worked and it was getting dark.

When we arrived home the owner of the car came to the house. Pak Made was very worried. But he agreed to go with us in the morning to the Klungkung police department, the *Polres*. The next day I was to learn how nervous he was. He had no proper business license, the car was a private car belonging to his brother-in-law, and it was uninsured. I was not aware of any of this. He was afraid of losing the car, not to mention the bribes that the various levels of police would extract from me and from him.

Dewa and Allan picked up Made and me at about 08:30 for the drive to Klungkung. Dewa drove. While in route to the police Dewa got a call from the plain clothed detective, also named Dewa. We were not to go to the Police Station but he would meet us at the Honda dealership in Klungklung where the bike had been taken. That was good news. There we got the mechanics to do an estimate. It was a brand new Honda, only a week old. They explained that it was so new that they would have to order the parts. And they needed payment up front to order the parts. All 2,630,000 Rupiah (about US \$270.00). The motorbike would have been totaled had we been in the US. As soon as I paid the

dealership for the estimate, the policeman gave us the broken laptop to take to a repair shop in Ubud, returned the registration to the owner of the car, returned Allan's driver's license, and let us go. All the police just simply vanished. No bribes. No fines. No nothing. Our worst fears and our biggest concern just simply disappeared. Pak Made, the owner of our car, was really aghast and relieved. I really think that it was a combination of our willingness to admit the guilt, to fix the broken things and Allan's mentioning of the Police anti-corruption man's name.

We then went to the *warung* that was smashed by the bike. The owner met us, shifted his plug of betelnut from one side of his mouth to the other, and extorted us for 1,000,000 Rupiah. At that time it was about \$100 US. His original demand was for 1.5 million. For one million he can buy and provision a new stand -- maybe even two. We have noticed that his stand is often closed these days. Why not!! He got plenty of money for the incident. He seems to spend little time in his juice stand. We have seldom seen him as we pass by his stand about every two weeks. In any event the four of us had a great lunch at the famous fish restaurant. After all they view us as, and I am expected to act like, a two legged ATM machine. They used to call us money trees or walking ATM's. But then it is only broken plastic, bent metal and money. We are so fortunate that no one was seriously injured.

So what is left to do is to pay for the laptop repair (or replacement) and the damage to the car. Danielle and I rode our motorbike to the Rotary meeting on Monday evening. This was while the car was being fixed at the body shop.

Keep it Simple

Organizations such as the World Health Organization (WHO) and Water Sanitation and Health Rotary Action Group (WASRAG) have stated that a high percentage of all water projects fail after a time. How high is that? I don't think we know for sure. But one thing is certain, if the project fails the people will go back to getting water as they have done before. And they are often worse off than before we started the project. The reputation of the organization is also at risk. This applies to both the funding and the doing organization as well.

There are several questions which are left unanswered in the above narrative. These are not limited to the following, but include:

Financial:

Who is responsible for what costs – current costs and future maintenance? Is there enough money to finish the project? Who is responsible for the operating costs? Who is going to pay for the necessary repairs?

Cultural:

Have we overlooked some cultural aspects? It is very difficult to try and change a culture. If the people have been doing something the same way over the centuries, there is probably a good reason for doing it that way.

Environmental:

What is the total impact of the project on the totality of the water sources? What are we doing to the aquifer? How are the springs and the aquifer related? What effect do the hotels and the villas have on the aquifer? Is there enough water for everyone?

Social:

What is the plan for keeping the project working? What social aspects are we disrupting? For example we found that the women like to gather together at the place they get water. They bathe, do their laundry and exchange current events of the day. We found that one gets good, practical information from the women when the leaders are not around.

Institutional:

Who is responsible for future improvements and checking on the completed system? What is the plan to inform the higher

authorities? What levels of government do we involve? And when? Do we inform the higher authorities or does the village chief?

Technical:

What high technology and imported ideas will remain and will they be understood by the people they are trying to help? What volume of water is needed? What are the flow rates, pipe sizes, pump sizes, tank sizes, and etc.?

I had a talk with a Balinese chap who works in our compound. We were talking about what it is that we do with the water projects. He asked, "Do we bring the water to individual houses?" I told him that we have distribution tanks strategically placed for every ten families. The water gatherers still have to walk to collect the water, just not as far. He mentioned that this was like the system that he grew up with some 20 years ago. I told him that the water was for drinking and cooking only. He said, "That was a good plan. People can bathe and do their laundry in the river." The only problem is that there is no river in the project area. They only have the springs high in the hills or the wells near the coastal road. And, of course, they have the ocean to bathe in. But that is not much of an option for most people because of the long, hot, dusty walk back to their homes.

The long term solution for their water problem will require a lot of money and a lot of effort. One plan that is suggested is to pump over the mountains from lakes on the rainy side. The government favors this option. In order to save money the government of Indonesia is currently planning to pump the



FLASH FLOODING IS A REAL DANGER.

water to the top of the mountain chain. Individual villages are responsible to distribute the water from there. The problem is that these are poor villages and do not have the money.

Another plan is to build reservoirs by damming up the ravines to trap the rain water during the months of November through February. The problem is that it would cost more money. This plan would require the building of roads to the project site due to the amount of construction material needed. During the hard rains the water rushes down the ravines and simply goes to the sea. It is of no benefit to the mountain people except that it does water their crop lands. They terrace their corn plots to trap the water when it falls and to prevent top soil erosion. It is very dangerous in the high mountain ravines during the rainy season. Often a child or two, because they were playing in the flash flood areas, will be washed down the ravines and into the

ocean and lost forever. This happens to some children each and every wet season. Each election cycle the various water plans are understood, discussed and promised. But nothing is ever done. The people still collect water the same way they have been doing for hundreds of years, perhaps thousands of years.

We are making such a difference. Albeit our systems are good for only about 10 years. The tanks, both plastic and cement, must be scrubbed out from time to time. And the pipe is simply laying on the ground. It is impossible to bury the pipe in many areas because of the rocky terrain. Left to the ravages of the sun the thick walled pipes have a finite, but unknown, life span.

Concluding Comments

Great progress has been made in these villages that the tourist to Bali never sees. Both the government of Indonesia and NGO's have been active in the area. Over the years the government schools are being built by the roads and the authorities are building roads of sorts to the remote villages. Some village health clinics are being built in the main villages. In 2005 when we started the Rotary water projects it was before the cell phone revolution. When we wanted to hold a meeting with various village leaders we would have to send runners up the mountains a few days in advance to let them know that their presence was requested. Now we just call them on their cell phones. They still have to walk down to the coastal road every couple of days or so to charge their phones.

At least, two other large projects which focus on the water problem are extant in Bali. All are doing great work. All are in North Bali and are a long way from our projects. One is centered on the village of Muntigunung where most of the beggar women come from. It was started by a retired Swiss banker named Daniel Elber in about 2003. He noted the begging women and their babies around Ubud. He asked them where they were from. Most often heard around Ubud is that they are Javanese beggars. He was surprised to learn that most of them came from the same village and are Balinese. So he went to the village of Muntigunung, assessed the problem and started the Swiss organization, Foundation for the Children. It was with Daniel Elber that I had long discussions before we started the Amed water projects. He has concentrated on water availability, cashew production, rosella tea, and straw hat making. He has hired one of the Rotaractors to run the trekking program. Pak Pica was involved with us on the first projects. It is quite successful and hires the begging women as guides. Funding for his project is through and by an organization in Switzerland.

Another major project, further to the east, is the East Bali Poverty Project started in 1998 by an Englishman named David Booth. He concentrated his efforts on the village of Desa Ban and later expanded to the three other villages of Tianyar. He surveyed the people and found out that their interests were in education for the children and for help to the crop farmers. Most of the people had health problems and were mostly subsistence farmers with a severe lack of water. Education and health are his main concern. Funding is accomplished by several fund raising sources.

Several other, but smaller, attempts have been made. These are usually one of a kind efforts to solve the water problem with a small group of people. All have been done by non-governmental organizations or by the people themselves. Some of these organizations are doing fine work. For our projects we first concentrated on the water problem. Carrying water from distant springs or wells located on the coast is a very time consuming activity. We have tried to introduce different crops to supplement the staple of corn and have tried to introduce some forms of economic opportunity. The problems are almost overwhelming. They are the poorest of the poor. They generally have little or no education opportunities, they all have significant health problems, and the people have little opportunity for economic development. All of this is in addition to the lack of water availability. The long range solution is education. Basic education for the children and literacy education for the adults. But all of this will take time. We realize that access to clean water is not the answer to all their problems, but it is the problem to solve first of all.

We learned a few things. It is better to say that we relearned few things. The first is that dignity is more powerful than wealth. Just to make an economic difference in a few people should not be the objective. The second thing is that charity will not solve the problems of poverty. We learned that traditional charity never works in the long run. Good markets will not solve the problems of economic wellbeing. Markets, in the business sense, mean nothing to a people who are accustomed to subsistence farming and have no knowledge of how to run a business. What is important to these people is looking out for

their families. Then their extended family. Then the village. It is a bottom-up society not a top-down society. The society here seems to function with the idea that ‘the emperor’s influence ends at the village gate’. It is far better to meet their needs as they themselves see their needs. Sure, we can make anything happen. But it is always best if they identify the need and they, themselves, make it happen.

Of course this is not the end of the story. We have many more villages to go. And we learn a lot from each and every project. Every project is different. Every village is different. About the only thing that remains the same is the way the villagers have traditionally collected water. It is the same way that they have been doing for hundreds of years -- maybe thousands of years. We are adamant in the belief that this is not to be a hand out – but a hand up. We are ambivalent about who takes credit for these jobs. If a particular organization wants to take the credit by installing signage in these very remote areas, we will install signage with a proper symbol and names of the organizations. We are sensitive to the fact that a western person with a lot of money in his pocket will find a willing recipient to give it to. And the receiver will be most grateful. But it is often not the best use of the money. So there are financial, cultural, environmental, social, institutional, and technical aspects to the problem.

But first and foremost we are resolute that the people we want to help are the people who want to solve their own problems. We simply make it possible for them to do so. Imported solutions do not seem to work. That is, unless the people are convinced that they will work. Complicated solutions never seem to work

for long. When the people think that it will work, are convinced that it is their idea, and construct the solution by themselves will the system be a good system. Once they buy into the project, do all of the work and own it then and only then have we solved the sustainability problem.

We must solve the problem of sustainability. A large majority of water projects do fail in the first few years. We must involve the people we are trying to help. This is best done by letting them design, supervise, build, buy-in, own, and maintain the systems. This applies to all the stakeholders. We have found that imported or complicated solutions do not work for very long, especially western solutions. When the project fails the people are often worse off for it. Sophisticated solutions to the problem are often problems in themselves. For water problems, the best systems are gravity fed systems. The drilling of wells require pumps and motors of some sort. They are expensive, require some sort of power, and wear out if not maintained correctly. In our case, wells have a couple of their own problems. It is nearly impossible to get the drilling equipment a long way off the road or up in the hills. It is also impossible to tell if it is even possible to get any water by digging or drilling a well high up in the mountains. Since no hydrological survey has been done, we don't know how deep to dig or even if an aquifer exists high in the hills. Another problem is that big plastic tanks for the gravity systems are difficult to carry up to where they are needed. This is why it is easier to build a concrete tank *in situ*, especially for the top, or collection, tank.

We have learned that good communication is a key factor. A



THE END OF A LONG DAY.

good understanding is essential. This is particularly important when there is a language barrier. The NGO's, who are the providers, generally speak English. The national language is Bahasa Indonesian but these people understand and speak a dialect of Balinese. They generally have never learned the national language because they generally do not attend school. This is why the young Balinese Rotaractors are important with their translating ability. Finally, we must be sensitive to the cultural, financial, environmental, social, institutional, and technical aspects of the problem. Then and only then will we have a good project.

We must have fun doing what we are doing. The reward of a bunch of smiles from the faces of the mountain people are great. But we must enjoy the work. It is fun, exciting, and culturally rewarding to be with and to begin to understand these people and to do these projects. A completed project is a big pay-off for relatively little money. The smiles on the faces of the people is priceless. I just wish the various donors could see the finished product and to share the joy that we feel—and the people feel.

These projects are more than bags of cement, pumps, pipe, and rebar. Those are the things one can see, feel, hear, touch, and smell. All of the things which are important to the sentient person. The real solution is not a material object. It is something different. It is a state of mind. The smiles of gratitude on the faces of the people. The knowledge that they will have clean drinking water. The sense that their water problem is solved – or at least much improved. These are not tangible things. It is something felt or regarded. It is not hard to understand, just hard to put in words. It is something to feel and sense this ‘aha’ moment. At the beginning of this short book I quoted Joseph Conrad as saying, “to make you hear, to make you feel — it is, before all, to make you see.” I think this is what Conrad means when he says, “...it is, before all, to make you see.” It is my hope that this small bundle of sticks will help to enlighten one to the water problem of the people of the Amed area of Bali.

I am convinced that we in the west are now moving towards living in a ‘rights’ based culture. This is opposed to a ‘duty’ based culture which is characteristic of the Balinese culture. One of



WHAT IT IS ALL ABOUT.

the many times I had a discussion with a Balinese man, Wayan 'Kaler' Suyanta, and he suggested the difference between the eastern and the western cultures. He is currently getting his PhD in philosophy at a university in Java. He stated that the culture of the east is a duty based culture. A duty basis implies certain responsibilities. The culture of the west is a rights based culture. He observed that a rights based culture sooner or later always leads to conflict. Where it is duty based, the culture seems to be responsible for taking care of the rights of others. He was adamant that a duty based culture is better than a rights based

culture. All of our heroes speak of duty. For example, “England expects that every man will do his duty” says Admiral Horatio Nelson before the battle of Trafalgar. My college ring states the motto of the US Military Academy at West Point as ‘Duty, Honor, Country’. I have a less than negative feeling for those who think, ‘Rights, Don’t care, Whatever’. We hope that we are doing the next right thing. It is our right to do what we will. But along with that comes a sense of responsibility. The Hindu Upanishads state, “Knowledge is better than ritual. Prayer and meditation is better than knowledge. But true peace and serenity happen when you trust God and help other people.” It is no accident that the Rotary motto is SERVICE ABOVE SELF.

Glossary

Those words with an asterix (*) are Balinese or Sanskrit words. Capitalised words are locations, villages, or proper names.

Aas	a Banjar in bunutan	Bali	an Island of Indonesia
Abang	both a banjar and a district in NE Bali	balian *	traditional healer
adat	customary or traditional	Ban	a village in North Bali
agama	religion	banci	transvestite
agung	great, high, or supreme	Bangli	a Banjar in bunutan
ahimsa *	to do harm to another is not good	bangunan	a structure or something built
air	water	banjar *	sub village
alit *	small	bapak	father
Amed	an area and a village in Bali	baru	new
Amlapura	the captal of Karangasem	Batukeseni	a Banjar in Bunutan
amok	to run amok, crazy	Bedugal	a town north of Ubud, high in the mountains
anak	child	Beluu	a group of families in Aas
Ancut	a Banjar in desa Tista	Bentyung	a Banjar near Ubud
arak	local whiskey	beras	uncooked rice
are	an area 10 meters square	besar	big, large
asli	original	bhuana alit *	microcosm
bahasa	language	bidan	nurse mid wife
bak	tub	brahmana *	priestly caste, highest caste
		budha	the Buddha

bugis	a people from south Suluwesi	Git Git	a Banjar of Desa Bunutan
bukit	hill	goreng	fried
bule	albino, white person	gotong royong	working together
bumi	earth, ground	Gulinten	a Banjar of Desa Bunutan
buncis	string bean	hati	heart
Bunutan	a village in NE Bali	ibu	mother
bupati	Regency head	ikan	a fish
camat	sub-distict head	jakung *	outrigger canoe with a triangular sail
campur	mixed	jamu	herbal medicine
Candidasa	a Village in East Bali	jambu	guava
Canguang	a Banjar in bunutan	Jimbrana	a Village in south Bali
Celukanbawang	a Village in North Bali	jus	juice
Culik	a Village in NE Bali	kabupaten	Regency
curucuk *	bird, a bulbul	kalah *	to lose
dan	and	Kalimantan	Borneo, and Island of Indonesia
desa	Village	Kalowna	a town in Canada
dokar	horse drawn buggy	kampung	compound, village
dukun	witch doctor	kapundung *	a small fruit
dusun	sub-village	Karangasem	a Regency in NE Bali
empu *	a Pande priest	kasumbi *	a small fruit
galungan*	a time for penjors and family celebrations	katan *	sticky rice, used for cakes and ceremonies
gangsaa *	xylophone like instrument	kecamatan	distict
ganung	mountain	kelian *	head
Gianyar	a Village and a District		

kelod	away from the great mountain	nasi	cooked rice
kelompok	group of families	natal	Christmas
kepala	head	Nusa Dua	an area of south Bali
Kertamandala	a village in NE Bali	nyepi *	silent day
kitas	long term stay permit	odalan *	temple celebration
kopassus	Army Special Forces Command	ogoh ogoh *	floats made of bamboo, styrofoam, etc
kopi	coffee	pajak	tax
krada *	religious creed	pak	short for bapak, father
kran	faucet	pakian	clothes
kris	a Balinese knife	panca	five
ksatria *	warrior or leader caste	pande *	a clan of metal workers
kukur *	a dove	pedanda *	high caste priest
kunigan*	10 days after Galungan	Peliatan	a Village in central Bali
kusambi *	a small fruit, bitter, but good for thirst	pemanku *	low caste priest
Lampuyang	a mountain called Lampuyang	penjor*	decorative ceremony poles
Lingawana	a Banjar of Desa Bunutan	pipa	pipe
Lipah	a group of families in Leon	PKI	Indonesian Communist Party
lambung	rice barn	PKK	women's organization
mangga	mangoe	polres	the area police
mata	face	Poso	a city on the island of Suluwesi
meninggal	die (of persons)	propensi	providence
monyet	monkey	pulsa	minutes, unit of credit
Muntigunung	a Village in North Bali		

puskesmas	government health clinic	Tianyar	a Village in North Bali
putih	white	tinggal	stay
rumah	house	tirta*	holy water
salam	greeting	Tista	a Village in NE Bali
Sanding	a Village north of Ubud	triwangsa*	upper three castes
Sanur	a Village in south Bali	tuak	rice or palm wine
Saraya	a Village in East Bali	tukang	expert, skilled worker
sehat	heathy	Tulamben	a Village in NE Bali
sejahetra	prosperous	Ubud	a Village in central Bali
sekola	school	ulang	repeat
selemat	greeting, congratulations	warna	color
senang	happy	warung	small store or restaurant
siwa *	a god	wesia *	shop keeper caste
Songis	a Banjar in Kertamandala	yayasan	NGO, foundation
subek *	water organization		
sudra *	farmer or peasant caste		
Suluwesi	an Island of Indonesia		
swastika *	symbol of the Balinese religion		
tahun	year		
Tampaksiring	a Village north of Ubud		
tamu	guest or tourist		
tanki	tank		
Tegalalong	a Village and a District in cetral Bali		

The People

These are some of the people who made the water projects possible in the area of Amed. They are in alphabetical order.

Scot Allen

Scot was the first person that I approached for money. He is the 'go to' guy in getting a project off the ground. He was President of the Interquest Club some time ago and they have been very helpful ever since the beginning.

Sue and Don Bennett

The Bennetts built a house in the village of Laplapan north of Ubud. They both got interested in the water projects as members of RC Bali Ubud Sunset. Don took a year off from the Sunset club to become the president of his RC Woodside/Portola Valley in California. They and their Rotary Club have contributed to the water projects.

Sue and Ray Bishop

Sue and Ray are originally from the Sunshine Coast in Australia. They bought a home in Keramas Beach which is in Northern Sanur. They took over the health component of the Bunutan Development Project and are doing an amazing job with the organization called Rumah Sehat.

Lesley Bredvik

Lesley hails from Bozeman Montana. She came to Bali with

some women's project, heard about our water projects, and funded the Beluu extension with private donations and with her Rotary Club of Bozeman.

Marilyn Carson

Everyone's idea of a good Rotarian. She spends her time and money with various Rotary projects. She is a multiple major donor and Arch Klumph fellow (a minimum of \$250,000). She was involved in many projects. She started the Sunset club and was its president. She is now a member of RC Seminyak in Bali.

Bill Dalton

Bill wrote one of the early guide books to Bali. He lives with his Javanese wife in Tabanan, which is about one hour from Ubud. He is a freelance writer and is published in many airline magazines.

Ron Dixon

Ron was a retired Canadian who had a small jewelry and furniture exporting business. He was the first person who helped with our water projects. Some amazing coincidences in our lives. We were about the same age, both of our first wives had died of cancer and left us each with three small children, we

both lived in Bali for most of the year, and we were both members of the same church denomination.

Henry and Eileen Eiler

Henry and Eileen have contributed to both the water projects and the health projects of Rumah Sehat. They are good friends of the projects from New Zealand and come to Bali from time to time.

Daniel Elber

A retired Swiss Banker, Daniel moved to Bali and started the Foundation for the Children which is a Swiss organization. The difference between our projects is that they do not have fresh water springs and must rely on catching rainwater and on digging wells. Work on the water projects was halted when the government announced a plan to bring water over the mountain from a lake on the wet side of the island. He is concentrating on economic and community development.

David Hardy

I met David in Bali in about 1997 although we worked in the same organization, in the same building, at the same time before we both retired. He is an American who worked for the Combat Developments Command of the US Army. He was a forensic scientist, a psychologist by training and I was an Operations Research Engineer. When we met he asked me if I knew a Doctor Payne, I said that I worked for Wilbur Payne. David is a fine man, and lived in Bali for many years before

he moved to Bangkok for health reasons.

Grayden and Wendy Johnson

Grayden is an Australian electrical engineer. He has been a welcome addition to the team and was instrumental at solving the electricity problem at the electrical pump at Banjar Aas. He and his wife were also important in getting the Beluu extension finished.

David and Ann Lock

David and Ann are from Australia and live part time in Bali. They are retired farmers and own an accommodation here. He is the soils expert and active in the Amed area.

Sylvia McGroarty

Sylvia is from Toronto Canada and is a good friend and contributor to the water projects.

She made a substantial private donation which we used for the Aas Distribution project.

Made Midra

Made is a good friend and the owner of our land, owner of the hotel Bhuana Alit, and owner of a rather large handicraft exporting business who employs several woodcarvers. He said, "Why don't you build your house over here?" I asked him for how much he would sell his land. When he said that he would never sell his land, I immediately decided that we could do business.

Nithi and pak Rai

Nithi does amazing things with textiles from her 3 (or more) stores. Her husband, Rai, is an artist. She is a good friend and a great business person. They live in Ubud. We were having supper with her and her husband when I mixed up the two Indonesian words.

Diane Parker

Diane used to live in Bali part time but she now lives in British Columbia, Canada. She is a good friend to the water projects and she and her Rotary Club Ogoopo have contributed immensely to the Rotaractor's Mobile Libraries and many more Bali projects.

Judith and Bill Schneider

Judith and Bill are from the San Francisco area. She is a retired tax attorney. He is a retired wine grower and retired from the US Army Reserves. They live part time in Bhuana Alit and were the funding source behind the Songis Project with their Rotary Club Foster City, in California. Their club has donated money toward several of the projects.

Henk Solomon

Henk introduced me to Bali. He was an American waste water engineer who worked for a large international company. He had lived in Bali for a long time. He spoke several languages and knew several German beer drinking songs.

Allan and Raelene Starr

Allan and his wife Raelene are full time residents of Bali. They both hail from South Australia. Allan is the president of RC Bali Ubud Sunset for the year 2015/2016. He is very active in the water projects.

Ketut 'Ping' Suadarna

It all started with a man named Ping who is a Balinese man with a heart of gold. Originally from west Bali, he met and married his wife, Juli, when he was working at the Hidden Paradise Hotel in east Bali. We met them both in 2005 when he was the hotel gardener. He quit his job at the hotel, having worked his way up to the operations manager. He now works full time for Ray and Sue Bishop at Rumah Sehat.

Wayan 'Kaler' Suyanta

Kaler is one of the Rotaractors and has been with the water projects since the beginning. He is a lecturer in Religion at a university in Denpasar and is currently getting his PhD from a university in Malang which is in eastern Java.

Kadek 'Guli' Suyasa

Guli is the manager of the Bhuana Alit accommodations. We have been to his village of Rendang several times. It is up in the mountains. His father is a rice farmer and one of his uncles is a priest. He has helped with the water projects in Amed.

BACK
COVER