



"I'm basically a barrio boy because my father, who is also a barrio boy, loves going back to the farm. I grew up looking forward to vacations in the farm. My father, being a forester, would take me from time to time to the field. And that's where I saw the forest and that it's beautiful and the people there look at the forest as their source of life."

"Then I became an exchange student. Somehow when you're away from your country, you begin to realize how much you love your country. And I saw that I needed to return and use my talents to help my country. The way I looked at it was that forestry then was a profession that was not really that respected and not really strong enough to deal with the problems I saw in the environment. So while I was given scholarships to either go to Ateneo or to La Salle for other courses, I decided to go for forestry in the UPLB College of Forestry, and actually made my mother cry. But I said that having been strengthened in my expertise by being in a special science high school, I was going to be one of the best scientists in the country, then I said why not direct it to a field that's needed by the country and where very few, I felt, good students go. So I went into forestry and so in a way, I was somewhat an activist."

"And when I went into college, within one month, martial law was proclaimed. This infused my environmental activism with an activism against martial law, for democracy and for human rights. And during my whole college period, I was both an organizer for environmental concerns and also against the martial law regime."



"Thus I came out with that kind of a mixed type of looking at protecting the environment: that you don't come in as a biologist or as a lover of trees or as a lover of animals, but more as linking the environment to human rights, linking environment to democratic governance, linking the environment to meeting the needs of especially the poor and the marginalized, and looking also at environmental work as a way of creating equity within the country."

"The way I look at the Philippine environment, forest and people today is that we really have a very damaged ecosystem. In fact, when I started doing forestry work, there was already quite significant damage in our forests. And that gets you to start thinking what are the roots of the problem?"

"Especially at that time when even in the College of Forestry, there was a thinking that it's because of people and overpopulation, that the poor people go to the mountains and do *kaingin* and cut the forest. I started questioning that because it seemed to me at that time, that this was a result or an effect, a symptom, rather than the root of the problem. I went deeper to the root of the problem and saw this becoming the roots of poverty. Then I began to look at whether that poverty is the result of the internal dynamics of the country itself or is also influenced by global dynamics?"

"I look at forestry in the Philippines also from that very broad angle: that it is a result of many factors in the Philippines, but is also affected by globalization, by policies at the global level, and the impacts of policies at the global level in the Philippines. And again, I am looking at the link between poverty and environment."

"So I began to look at summations that perceive people as assets, as another concern of the problem in forestry, rather than the problem itself. Then the root of the problem may be viewed where the solution is really to move them from the place. But since the root of the problem does affect these people, they can actually be

partners in solving the root of the problem. So if they could be a constituency that would advocate the correct solutions, then demanding better governance could be a solution."

"My experience also when I got into government was that there is really a lot of politics involved in these environmental issues. I was actually trying to convince the university then that we should start teaching political ecology to forestry students and to other students in the university, because in a lot of ways, the politics actually have a lot to do with what's happening in the environment."

"The reason why I left the country to be Global Manager of the GEF's Small Grants Programs was because I saw the link between global developments and what's happening in a developing country like the Philippines. While I valued my work as an environmental activist in the Philippines, and in fact many friends actually didn't like my movement to global work, I saw that it's also important to deal with the global dynamics that make a country like the Philippines very poor."

"The work in the small grants program is work that empowers the grassroots. One can look at it as empowering country by country. But when you bring them all together, when you start linking them together, you are creating a global constituency. And over time, that global constituency can become a critical mass that can influence policy-making back in their own countries. And when put together, when holding it in together, this becomes a constituency that will impact on policy at the global level. And so I see myself in my present work helping my own country, by directing some of the scope coming from the program to the Philippines itself, but at the same time doing something so that the solutions can come about at the global level.

"Given our problems in the Philippines, I see them as quite serious 10 years from now. I made my own analysis just looking at general statistics, and unfortunately my analysis shows that it will take us

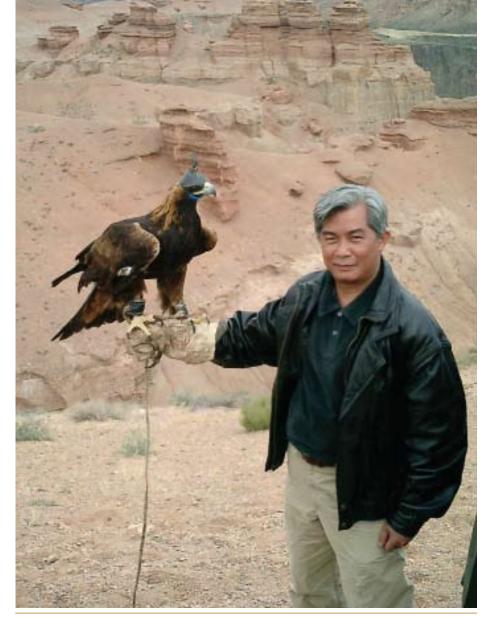
at least two generations of Filipinos to make a change. That is even assuming that we are succeeding year by year, at least to some extent. That's how long it will take."

"So the message I'm actually giving my children is that they have to be ready to continue and build from the work that I've already started and to sustain important initiatives that I started together with the organizations that I'm attached to. It's really a little bit difficult because, in a way, you are educating your children not to be only technically competent, or academically competent, but spiritually prepared, and really building them to be activists. And so in the house itself, whenever we have our dinner or lunch together, I would tell them stories of how we, as activists, are trying to solve these problems."

"One of our common topics is answering the question "What is integrity?" I read with my children, *How To Kill A Mockingbird* by Harper Lee, where one of the messages is that you don't look at whether you win or lose, as long as you really fight for the right. And it doesn't matter whether some people see it or not, but that the integrity is within oneself to fight for what is right. So I think my children are getting it. They've got to continue the work that I cannot finish."

"When I go to the grassroots and see what we have done, it's very inspirational because here you find people that are so dirt-poor, almost desperate for survival. Yet, when given an opportunity, they will exert full effort, make the necessary sacrifices, and their working together is able to do something about their critical problems. You see the nobleness of human beings, and even of society when you look at these small successes. Of course the problem now is how do we expand beyond these small successes."

"Some of the oldest memories root the deepest; when I was still in university I went to Mount Banahaw, and there's this *kainginero*. His name is Papa Valentin. What I learned from him was that even though he may have not gone through college, he had a lot of knowledge. He was teaching me a lot about forests and agro-forestry, and here I



Del Ganapin in Kazakhstan as part of a project helping an indigenous community protect their golden eagles

"Given our problems in the Philippines, I see them as quite serious 10 years from now. I made my own analysis just looking at general statistics, and unfortunately my analysis is that it will take us at least two generations of Filipinos to make a change."



am supposed to be the expert in agro-forestry, but I was learning a lot from him. And his strategy was simple. In fact, it was one of the best agro-forestry farms in the place without any tutoring by experts. He was simply experimenting. We'd go to the place, planting different crops and species. He observes nature and get lessons from nature and uses them it for his farming system. I was inspired by him."

"When I was teaching in the College of Forestry, I was actually looking at the history of the country and trying to get my students imbued with the spirits of some of our heroes. My favorite is Andres Bonifacio and the Katipunan. And the reason for this is that I still feel that within Filipinos, there is still that spirit of heroism, and that everyone can be a hero. Somehow we just have to be given an opportunity and the correct spirit and way of looking at our problems. And we've done it many times."





"Twas always interested in how people learn and how to make things interesting," is how Nina describes her chosen career as a wildlife biologist, but at the same time knowing the importance of people valuing the information that she wants to communicate. As a scientist, contributing to educational communication is as important to her as focusing on and developing her research area.

"Bat research and conservation was my focus. Bats as pollen and seed agents, and the importance of this, led me into forest ecology more broadly. The application is now much broader than that. It was important for me to participate in broader forest work so it took years for me to look at broader dispersal and names of trees.

"My dissertation was to compare birds and bats as agents of disperal and I started with forest trees. Knowing the trees made me aware of local knowledge. Zuilo Oresma of Kalugmanan, Manolo Fortich told me the names of trees and shrubs and why they grew, where they were, their flowers and fruits, what eats them, and how they grow. He must have told me over 400 names. Young people in the community are often not interested enough to know these names, but for forest management we need to know them.



Philippine large-headed fruit bat (Dyacopterus rickarti)

This bat named in 2007 can only be found in the Philippines and is known from 8 captures of which one was in Mt. Kitanglad. The bat has powerful jaws and large molars but is very gentle in the hand.

Photo credit: Medel Silvosa, courtesy of the Philippine Eagle Foundation "Bats are ignored even culturally more than rodents, as people trap the latter. There are only two local names, *kabog* for fruit bats and *kwikait* for insectivor bats. Some of the larger insectivores are also eaten.

"All bats have one or two young per year and live for 15 to 20 years at least and are very vulnerable to disturbances. Bats and bat caves are one of the most threatened species and environments as there are large concentrations of thousands of bats in one cave and they are very vulnerable. The flying foxes are highly endangered and these animals are so important for dispersal as they are so large and can carry larger seeds for greater distances. We know only of their role in the pollination of durian and mangroves, but there is much needed research on their role affecting a much wider forest ecology. But the laborer is also worth his wages, and fruit bats do eat lanzones and rambutan thereby affecting orchards."

This appreciation for the natural environment is something she grew up with when "as a child, I used to take long walks in the woods with my father, enjoying nature and the animals we saw, appreciating the discovery and the physical activity. I enjoy field activity and using my body fully in the work, not just sitting."

"I am happy to be called bat woman – if only to promote the cause of the bats," Nina jokes. Beyond her research focus, Nina shares as well her observations and insights on education, especially for children in upland schools, where science is also taught.

"I have been to many sites and saw how people in the area do things, and that is most important to me. Government is not active in these areas and NGOs do not reach and stay with many communities. Then I realized that the grade school, not secondary or collage, is critical, as most children in these poor communities do not even finish high school. Such a focus is valuable, but sadly, not well addressed."

"Scientists do not participate in grade school and often leave science education to teachers. Educators make materials from what is available and these are often western-based and do not relate locally. We could make more of a difference, and also get acceptance from the Department of Education (DepEd) for ideas and materials geared for children to use and relate to the uplands context. Education is valued by upland communities and they are more than willing to send their kids



rather than have them work all the time on the land. Education is an entry point to address their needs in life."

Nina then offers strategies by which to effectively integrate education in the local community context. "We need to work with the parent-teacher association in the community where you can often find natural teachers who can contribute much local knowledge. The *barangay* council is also another local group to collaborate with as they are critical for the planning, implementation, and management of resources and the environment. There is a need to create activities in school that help the children understand, appreciate, and better equip them to manage their farms and their forest environment today. They will learn from what is in their curriculum but at the same time, also life skills, if the curriculum is worked and developed from with the culture."

Nina sees the need more specifically in the multi-grade schools, as little material is prepared for such classes and the different levels of learning activities in a single setting. Cooperative learning is possible in such classes than in more homogeneous classes.

Nina remembers a community experience of great importance to her. "In Sinuda, Kitawtaw, I worked with a link between the Manobo-Tigsalog tribal community and the DepEd. I talked with the officials who petitioned for teachers. By the time the school was set up, the names of the children on the original list submitted to justify the need for a school were now the parents of the children ready to start schooling! That's how long it took."

"The officials brought the teacher to the community, walking with her for four hours before leaving her there. The teacher was Visayan and taught Tagalog and English. The children did not know her language and the teacher did not know theirs, but the community was committed. The community was a very dispersed sitio, not even a barangay, which was four hours walk away. They moved their houses closer together so the children did not have so far to go to school each day."

For Nina, "finding knowledge and discovering meaning is a process and gives confidence to act effectively. The wonderful thing about education is that you can see in the faces of the children whether you are effective. From one day to the next, you see the changes. If the material is not relevant, you do not see the lights go on. The more one commits to students, the more rewarding is the experience. What I like to do is have activities for the teachers that can help the community relate to the environment rather than rote memorization of terms from a textbook with little relation to life."

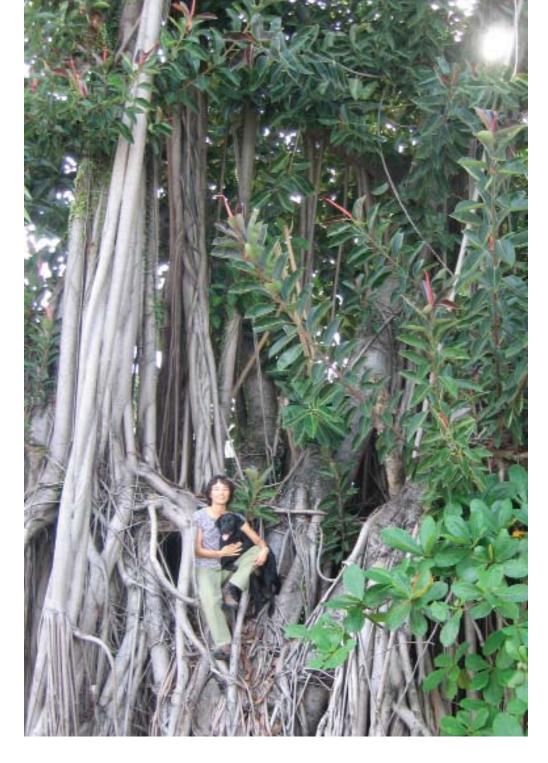
She is currently working with some colleagues and teacher-friends in college with their students to produce a locally-grounded book. The cost is prohibitive, and they are exploring how to eventually insert this into the DepEd's recommended books.

"I am confident that if there are useful activities that are not expensive for teachers that can be piloted, in partnership with people and organizations from the beginning, the effect will be great. As children, it just takes one event, one activity that can be remembered and it can affect the rest of their lives. It can be a pervasive influence, even if not intensive, that is appropriate and meets their needs," Nina envisions.

According to Nina, forest management in the Philippines was an idea from the 1980s. Appreciation for the environment was not there when she was in college. "Now, this is valuable and important. We set up Wildlife Conservation in the Philippines in 1992 and we initially comprised 25 wildlife biologists. Now we number around 200 participating members and maybe 100 organizations. On the ground, I don't think there are enough people. Local governments are looking for advice and in this there is growing capacity."

Nina also has some frank observations on how the government is pursuing resource management, such as the reliance on formulas like protected areas management. "We have this ideal of core and buffer zones, but in the Philippines, there are no plains, so the core becomes the mountain top and the buffer is the most threatened area of pre-montane





forest. There needs to be better adaptation so our environmental objectives in the Philippines can be better addressed.

Another observation is the tendency for oversimplification when designing and implementing management plans. "A simplification is that forests are just trees. Recently reading a report on reforestation affecting 1,000 hectares, there was no mention anywhere in the report of the species being planted, as if it did not matter. This is in contrast to local knowledge that does not make the mistake of simply equating trees with forests. The ignorance of watershed dynamics also leads to people simply thinking that if you plant a tree, you get more water."

This oversimplification is a problem along with the prevalence of pseudo-environmental expressions that do not relate to what is really happening. "We divide and simplify, we do not integrate and communicate. We need to integrate culturally. What is missing is ecology and anthropology and people's relations with the land and wildlife."

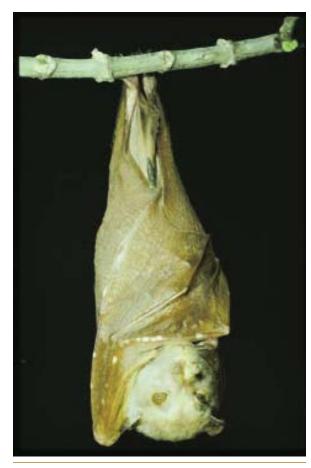
In the end, Nina shares with us what the country and its forest environments need. "We need more people who have the tools to think and plan locally, who can correct what they do, who are confident and can communicate, and who care and have commitment. We need to want to care. These are the people we need."



Philippine Musky Fruit Bat (Ptenochirus jagori)

This bat is only found in the Philippines and is common in forests throughout the country.

Photo credit: Nina Ingle



Philippine Tube-Nosed Bat (Nyctimene rabori)

This bat is known only from Cebu, Negros and Sibuyan. Its closest relative is found in Sulawesi.

Photo credit: Paul Heideman



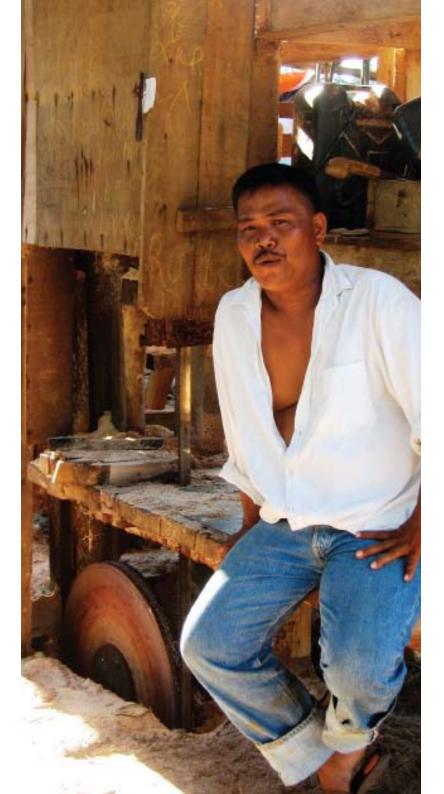




Dagut Ocite runs a sawmill in Barangay Santa Cruz, Rosario, DAgusan del Sur. He provides cutting and milling operations for farmers who sell him their cut logs, which he then processes as cut and polished wood boards for sale.

"What I was doing before is a long story. I was a shabu (crack or poor man's cocaine) dealer for six years. I was also in prison and even there, shabu dealing continued. I operated here in the Agusan marsh area. But I realized that it was almost like killing people and their families as well, even with all the money I earned. I did not realize that I was killing them, I just sold shabu so I can have money, but I never knew that I was also killing their families. It really has a great effect, it shouldn't have been my business. I promised myself then that I would not do anything that harmed other people, so I shifted to chainsawing.

"It's been two years since I stopped and I went into the chainsaw business last year. I have expanded and I have a mini-sawmill and a bandsaw now. But what I'm doing is illegal because I don't pay forest charges, I have no permit, I have no license. But that's only where I am illegal, because of the government and what it requires of me. But my work with people is legal, because this is how they source what they need to be able to eat. I may be illegal now, but I'm not harming anyone, I keep people alive, and I'm providing a livelihood to people."









He allows people from the community to come and take the waste cuts for the walling of their homes

Bagut worked out the economics of his business shift. After all the costs and expenses, he nets an average income of PhP1,000-2,000 per day, which is the same as what he used to earn from dealing shabu.

He also does not stretch his business too far from his operations area. While he gets orders to supply wood to as far as Davao and Butuan, he does not deliver to these areas. Working out the computations again, Bagut informed us that he will net the same earning due to the added delivery and transfer costs. So he prefers that the wood is picked up from Rosario.

"My commission is small from the board feet I sell and I also help the municipal office. I don't pay the DENR. There are some people who visit and talk with me, but they don't know me because I don't have deliveries in distant areas, I only operate here in Rosario."

Bagut is around 40 years old, married, and has children. He is a Lumad from Sitio Anuling, Barangay Santa Cruz and is politically connected in Rosario, with the brother-in-law as the mayor. His siblings are in politics. One brother is municipal tribal chieftain, another brother is a former barangay captain, and another brother is a small-scale mining operator. It helps his business as he also supplies the timbering needs for small-scale mining operations from Rosario to Davao.

"My father was a farmer and I started off as a farmer, then I went to Bunawan where I joined the small-scale mining operations. I was part of the bollmill operations and I worked there for 10 years. I handled around 12 drums in the bollmill and I was earning PhP10,000 per month. Even when I was single, I was already doing business. I was also into buying and selling scrap metal and bottles."

In his mini-sawmill in Santa Cruz, Bagut deals with farmers who supply him the wood, mostly lauan, around three kilometers from his sawmill. Bagut explains, "They get their wood from their kaingin areas because they plant rubber after they cut all the trees in their area. They cut the trees so they can plant rubber. This is what we call salvaging, this is the purpose for cutting the trees and then they will plant rubber after. I don't tell them to cut so that I can buy their wood, this is theirs, they are cutting down the trees so they can plant rubber. Sometimes they also plant falcatta, but it is mainly rubber."

Bagut describes his operations. "There's somebody who delivers the round logs to me and this costs them PhP150 each. Usually I get 30 pieces of round wood. Then I process the wood and I buy them again at PhP8 per board foot, which I then sell at PhP12 per board foot. This price covers my machine costs and the gasoline expense. I get PhP1 per board foot, and PhP3 for milling. The volume I dispose here from Rosario is around 200-300 board feet weekly. When I proceed to milling, I polish the wood, and put this on display.

"So the farmer's cost is the buffalo and the added costs for traveling here, which we estimate to be around PhP150. The buffalo pulls the logs up to the area where they will be cut. Then they bring them over to the milling area. In the end, they will get around PhP400. Deduct the 150 and they are left with PhP250. Thus, I provide a livelihood, their trees are cut, and they have a livelihood.

"I don't choose any wood in particular, as long as it's not rotten. I also mill mangium, but that's only a small volume and the market is small. The wood is weak and people don't like mangium as the base is weak and breaks. The price is the same as lauan. All have the same prices when I sell them: falcatta, lauan, mangium.

Bagut asserts that what he is doing does not do any damage to the forest. "I do not disturb the forest." He says that the wood he sells is mostly for house construction. He also has some poultry so that the government will not target him. "My earnings are exactly for what I need only. I don't drink. The government will target you if they see that your income is from illegal activities. I pay no tax, have no permit nor license, and even at the start I have no papers to show. The MENRO LGU always contacts me, because I'm illegal. The DENR is close to the locals and if the locals report, you will be caught. Because the locals have a project on wood too, I am their wood supplier and they can get the wood on credit from me. They benefit from me too. It's just that I'm different because what I do is illegal."

Bagut is also supplying for free the coffin demand in Rosario. "I wanted to have a project on coffin production, but I have agents who manufacture this. This can also benefit the town. I don't like a funeral parlor, just the coffin supplying. The coffins cost around PhP5,500, but I donate this to Rosario for free. That's my

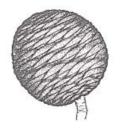
contribution. So even if I don't have a permit nor a license for my business, my work is needed. And I don't abuse. I still want to pursue a coffin project."

Bagut believes there is still much lauan in the forest and it is not being substantially reduced. "There is still so much. And there is a portion in the watershed that is not touched." When it was explained that the whole area is a watershed, and it is not just the portion where they don't cut, Bagut realized that they have a different understanding of what a watershed is and the impact of the continuous cutting, especially on their water supply.

"Then we should really plant trees," Bagut realizes.

Bagut's story is compared with that of a modern-day Robin Hood, but with all the attendant complexities besetting Philippine forests today. And this is not a fairy tale, but real lives and real people struggling to survive with the only resources they know, the forests, who are also struggling to survive in the midst of poverty.

"What I'm doing is illegal because I don't pay forest charges, I have no permit, I have no license. But that's only where I am illegal, because of the government and what it requires of me. But my work with people is legal, because this is how they source what they need to be able to eat. I may be illegal now, but I'm not harming anyone, I keep people alive, and I'm providing a livelihood to people."



JUANITO SADAY Abaca Farmer and Coconut Grower

"Idon't go the forests anymore. I'm already old. It's only my children who go to the forests now. I don't anymore, unless there's something that interests me," farmer Juanito Saday says. "There used to be lots of trees here, but PICOP, a logging company that operates in the area, cut them. The farmers didn't do the cutting, what they did was they sold to PICOP."

Juanito is 60 years old, married, with four children but he was alone when we spoke with him. "They're all in the farm today, planting falcatta. Yesterday we finished one hectare, but they had to go back today to finish some more." He informed us that when the land is titled, it is more expensive. And if there is planted falcatta, the minimum price of a hectare is PhP 100,000.

His main sources of income now are abaca and coconut, with a little bit of falcatta. "This was purely abaca-grown land before with some coconut trees that were grown for coconuts, not for the wood. There's somebody who buys the coconut from San Antonio, another barangay, and we deliver the coconuts there. Originally, this land used to be ricefields, then shifted to corn. Now it's really abaca where I earn a living, and a bit of falcatta. But now the coconuts are more dominant."



For abaca, he earns about PhP1,000 per plant. Each plant can produce around three bundles and the bundle price varies, PhP40, 50, 60 or 80. The white-colored abaca is locally called *alamay*, which is a wild abaca and has a red outer sheath. Alamay commands a higher price than the dark-colored *ginaba*, which is also a local term for something that is cursed.

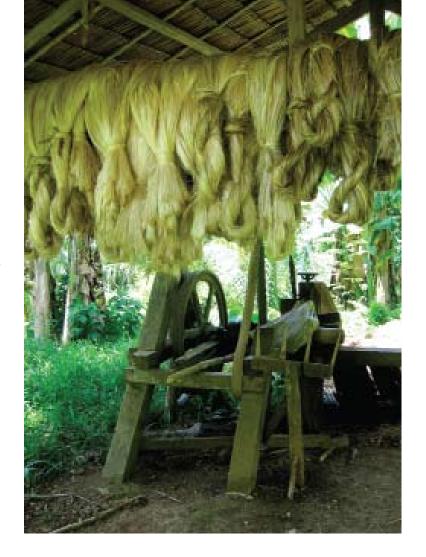
He used to plant coffee "but I wasn't able to take care of it, because the prices are so low sometimes. Coconut has better prices."

"We are *Lumad* and I was born in this area. But in this land, we've been here four years already. It's good land here, that's why many people come over to this area."

He says the hardwoods like *lauan* and *yakal* are already gone, although they can still get the seedlings from the forested areas. "There are only the bananas, but I don't plant them, they just grow."

Juanito remembers a time when there used to be a *diwatero* (the medicine man) in their community and there were rituals. When the diwatero died, all those rituals and practices stopped. "People now go to the doctor when they are sick, nobody believes anymore in those things. That's why they disappeared. Our lives now are focused on earning and the land is all we have to survive. So all we do is just plant these crops."

Juanito and his family lead a hard life and they have a simple story: a logged-over area converted for community agriculture, a day-to-day livelihood, left-over memories of forests replaced by what the land can still grow now, and traditional practices that disappeared, replaced by modern beliefs and technology that does not necessarily leave them any better off.



"People now go to the doctor when they are sick, nobody believes anymore in those things. That's why they disappeared. Our lives now are focused on earning and the land is all we have to survive. So all we do is just plant these crops."