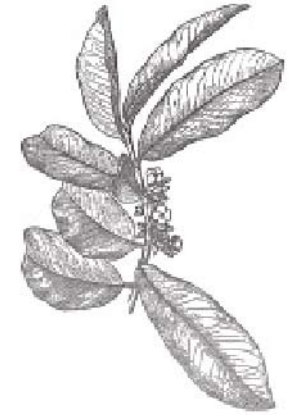




CESAR AGUINALDO
NGO Employee



Cesar has always had an interest in the land, if only in the plot of land around the house. As a child growing up in his father's hometown in Hindang, Bontoc, Southern Leyte, in Central Philippines, he learned to appreciate and enjoy the beauty of nature and the environment. From his father he learned how to work with the land, how to plant, how to nurture, how to grow vegetables. By the time he reached his teenage years, his family moved to Manila where he accompanied his father who worked in a nearby *convento*.

Work opportunities pulled him into the urban lifestyle where he managed to do some college studies. He now works with an environmental organization in Quezon City, but goes home to an urban two-story housing area in Bulacan, a neighboring province. He is married and has two daughters, aged 10 and 8, who are in elementary school near their home.

While Cesar's background does not include a technical ability and academic credentials in pursuing environmental research, his environmental awareness was nurtured and grew with the administrative responsibilities and information-compiling tasks he consistently responded to and managed.

He has not seen any forest, except for Bukidnon (in central Mindanao), where he met a community living from the forest. He was impressed with the forest he saw, the trees and the mountains



“But I never thought I could grow a tree from a seed, and to give away the seedlings. I enjoy that, and in that little way, I can help.”

and views the area as “gamot ng Panginoon” (medicine from the Lord), as the place provided him with mental and physical relief from the wounds of everyday life. He felt that the place was probably like paradise as everything there was given by the Lord, and the only thing left for people is how to take care of the area and for the community to be aware of the treasure they have.

Now that he is back in Manila, he wants to find out ways to help the children he came to know, the students in the school in the mountains. He feels that there should be more provisions for food, clothes, even blankets and pillows.

His visit in Bukidnon’s forests affirmed in him the value of forests. Forests for him provide clean air, hold the soil when there is heavy rainfall, provide water (especially for La Mesa Dam, the water reservoir for Metro Manila), and help in minimizing pollution. And depending on the types of trees, forests provide livelihoods and benefits to communities.

Trees provided much help in the recent typhoon that hit Metro Manila. Trees also have medicinal properties, especially the leaves of fruit trees such as avocado and *caimito* for prevention of diarrhea. Trees were also valuable in supplying wood for furniture and he remembers the antique chairs that still survive to this day: “My grandmother’s *narra* furniture that dates from 1900 became an heirloom handed down to her through her grandfather and father,” Cesar explains. “It all depends upon the class of wood; before it was mahogany, then furniture was made from rattan, then it shifted to bamboo, but now he has steel furniture. Rattan lasted longer than the bamboo, which easily powders.

His relatives who were hit during the lahar flow in the aftermath of the Mount Pinatubo explosion, experienced the effects of relief and rehabilitation mismanagement. They were provided relocation sites located far from where they could get and buy food. Politicians who promised that roads would be repaired during campaign periods, forgot their promises until their term finished, and nothing could be done anymore. Now, in Bulacan, we have dry, dusty summers.

There is definitely a need to have doable-action plans and to inform people what is happening. Information on landslides and flooding translated into posters are good educational and information materials and help in explaining the causes and what happened in the areas badly hit over the last couple of years. Both communities and local governments need to get involved and be informed.

Where he lives in Bulacan, the land previously owned by the Aranetas was converted into a housing subdivision after the mountain slopes were cleared. When it rains, the water flows down faster, there is faster flooding, and there is a greater amount of water. “The project was put on hold as there were problems in obtaining the environmental compliance certification from the government – that is a good thing.”

Where he lives, there are no trees, only houses. There are some shops making furniture from *narra*. Trees are found far from where people live. Water is more a direct concern, and people get it from wells, or buy from NAWASA (the Metropolitan Waterworks and Sewerage System of old). The high areas have pumps, but their housing area has its own deep well that provides water for over 1,000 people. This water source is maintained through homeowners who pay the dues. There is limited area where vegetables can be planted and area allocation depends on the housing developer. Solid waste management is under local government supervision and responsibility. Their mayor has many projects but most do not push through due to difficulties in securing loans from banks.

“If only I were able to, there are many things that can be done. If there’s the capacity and the resources to move, we can do a lot of things. It’s just not good to see that even if there are risks and hazards, people continue with destructive practices. If there is a focus, a will, a caring, and serious management, then forest areas can be sustained and enhanced. There are local government leaders (mayors) who have the interest in doing forest planning and management in their areas.”

Many things for Cesar are held up politically. He wants to help, but his difficulty is the discrimination and his efforts can be dismissed as he has

There is so much human need and environmental problems of water, land and people; while we all live in the same country and are all related, we live without recognition of the other.

Cesar with the children of Payatas dumpsite





no connections, no money. His assistance he says “can go somewhere and it can also go nowhere.” There is a sense of frustration. He would like even to find ways to help street children he sees in street corners sniffing “rugby” (glue), begging for pesos, within sight of police stations. “Where are the agencies and groups that should respond to this situation?”

Cesar also mentioned the trees he likes. “I like planting the mahogany tree; I like its wood and its straight trunk. It also has medicinal value as the seed, when boiled and you drink the tea, can lessen cholesterol levels. I also like the fire tree for its flowers. I don’t like acacia, especially when they grow near houses. The leaves that fall can clog and damage rooftops and roof drains.”

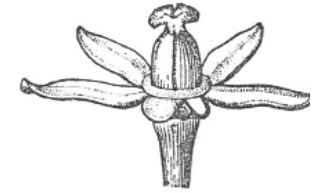
“But I never thought I could grow a tree from a seed, and to give away the seedlings. I enjoy that, and in this little way, I can help. I am happy when I can share tree seedlings that I’ve planted. There were trees that we planted about 10 years ago and they are now big. We gave others to communities and different people and when I pass them I am glad to see them and feel good.” Cesar grows hundreds of seedlings in a year and finds many good homes for them. One desire he has is to be able to find out how these tree seedlings have fared in the many homes in which they were distributed.

Cesar, like many people who have moved from the provinces to an urban way of life, try to put their experiences together so as to contribute to a society they want to change for the better. It is hard to get all the good energy together at the right time while politics frustrates any effort. There is so much human need and environmental problems of water land and people; while we all live in the same country and are all related we live without recognition of the other.

Beyond government, he says “people also need to change. And if there are difficulties, these must not bring you down, but should be viewed as challenges. Even if we say that we can change, one needs to be strong. Action is what people want, not words.”



NICOLO DEL CASTILLO
Architect



Nick is an architect by profession and teaches at the University of the Philippines (UP) College of Architecture. He served as Campus Architect for some time and is very well aware of the challenges faced by his profession in relation to the country's deforestation problem and local wood shortage. He also sees the value of imparting to his students the realities their profession faces in the current environmental problems of the country. In a recent university forum on tuition fee increase, he provoked the discussions by remarking that the tuition free increase is contributing to global warming. Nick said this will lead to more classrooms requesting more air-conditioning, and therefore retrofitting of buildings to accommodate demand for electricity, thus requiring Meralco (the electricity supplier) to generate more electricity, leading to more carbon emissions.

His first exposure to environmental awareness was when he joined the UP Mountaineers as a student. Then, his idea of the environment was an abstract, distant advocacy, as he joined the activities mostly for fun. The experience of this involvement created in him an awareness of what a forest is. The most pristine area he has seen is Mount Halcon in Mindoro: from the top looking downhill at the lushness, a canopy of trees, with some diffused light managing to penetrate the thickness.

Fast forwarding to reality, however, the industry was heavily hit when the congressional anti-logging bans gained prominence in the late 1980s, as the timber or wood that could be used could not be specified and no alternatives were presented. Wood is still the most friendly construction



material. The steel industry is not developed and the types of wood allowed to be harvested are inferior. At that time, he felt that the people had no tools or power to put their sentiments into action. It also did not help that stories abounded of confiscated timber surreptitiously smuggled with some projects. It became a matter of who knows who, and that if one is lucky, one can use the best type of wood; and if one is unlucky, one cannot use this wood. Then came the tragic flooding of Ormoc in November 1991, and the national sentiment about logging was put into further prominence. Nick asks if there are plantations in the country where there is both extraction and replanting going on. The problem with plantations in the Philippines is the use of alien species; the monoculture that is encouraged uses only around six species. This does not help the biological environment, as no wildlife can exist in these conditions.

Nick continues, “Deforestation is a symptom of a bigger problem. I probably sound *baduy* (tacky and outdated), but I see the problem in the prevailing system of values, i.e., the greed, the need to be the biggest, the wealthiest, and sometimes you feel helpless. I am an optimist, but possibly there will be more tragedies and maybe then more people will wake up.”

“Human settlement development will still continue, but as to specifically knowing the paths where to go, I don’t really know. At the very least, with my students, I will continue to advocate economizing and conserving how energy is used. I question my clients’ needs for spaces, their need for another bedroom, a big living room, and how much of the day they really spend in the room. I can challenge behaviors and this can translate to a less expensive house, that will use less materials, and the way it is operated with limited use of fans and airconditioners. I can support the use of space outside, around the house.”

Nick showed us around a house he designed. “I designed this house with much input from the owners and it demonstrates the good use of natural light and facilitation of airflow, much needed in most houses in tropical areas where humidity is high. There is the entry of diffused light during the day, even through the north window. The use of *capiz* (a bivalve commonly found in Philippine waters) in the window screens allows the diffusion of light even when the windows are closed. You could see that the light still reaches across the six-meter width of the house. The use of wood in the windows and the indoor furniture also provides a warm texture to the house.”

“One aspect I like is the airway on the stairs to the second and third floors. This is where hot air escapes, while drawing in the cooler air from below. All the spaces are connected.



The windows provide exit points for the airflow. The house induces the air to circulate. The traditional approach really is to have higher ceilings, but due to budget considerations, we did not do that for this house. It's also a good location for a house, as the lot is situated length-wise along an east-west line. This means that the northern garden will be shaded from the harsh afternoon sun.

"I am focusing on simplicity of design and minimizing the use of electricity, but I seek to enhance the capacity of beauty, of creation at the same time; I just do it and talk about what I do.

"Where the present College of Architecture stands now was formerly the site of the UP Maintenance Office that burnt down in 2000. The college moved in by 2005 and was a rehab case. We were given scrap money by UP and we scrounged around for some funds that were spent on the roofing; and some more funds were secured by a congressman. We started with a poorly oriented building and thus it was necessary to install the colorful wavy flaps to shade the building from the sun. These also enliven the façade and make the building easily recognizable, even to kids. Sometimes we are referred to as the pre-school," Nick jokes.

"I now see things in a holistic way, not just the forests, but how things are connected and the impact of behavior. The efforts to save the forests in the Philippines have basically failed because they're based on foreign models. What I am driving at is that changes are needed. My master's thesis is on basing Philippine architecture theory on values that are still Western-based, with much borrowed from western philosophy. The architectural system should be attuned with the country's values."

"Recycling, for example, is actually being done in households in rural areas. If there's a throwaway society, there's also the scavenging society. There seems to be a schizophrenic/split personality approach to environmental awareness and application."

Nick talked about "the principle that everything's related, the human value of *pakikipagkapwa-tao* (the value of caring for others), the animist value that there is life in everything. This is something still very much prevalent, but it is not translated into formal education or in what children are taught. We must have a homegrown philosophy. The *Kartilya ng Katipunan* (Teachings of the Katipunan, the movement that spearheaded the Philippine revolution in 1898, written by Emilio Jacinto and used as a primer by the Katipuneros) proposed as basic laws of the land that no one person is above another, the equality of people, and what democracy is. But this is not part of formal education at present. I thought the EDSA revolution (1986) would see to that, and maybe it did for the first month, but then everyone went back to their old positions."

Nick's main concern about his students is how to get them to spread the philosophy that he teaches outside the classroom. "There's genuine interest, but what I worry about is that I'm not preparing and warning them enough about reality outside the classroom; the values being taught do not match those outside. Society still measures success by how much wealth is made. If they don't get projects that match their advocacies, they can get disappointed and frustrated. They need to know the quality of life that can be factored in and to see people in different ways. I made a conscious decision to find work that will make me happy and probably will not make me rich."



**ED CORONEL and
PAUL AZARCON**
Mining Industry Professionals



Mining and forests in 20 Years

Ed Coronel and Paul Azarcon are two professionals who are carving out their careers in the Philippine mining industry. Ed has a commerce and accounting background specializing in development management, and is increasingly drawn to community relations and development in host mining communities. Paul is a geologist and presently works with one of the mining companies doing exploration activities in the country.

Their stories on forests draw parallels as they both acknowledge the urgent need to respond to the social realities in forest communities, mainly typified by the extent of poverty and lack of basic social services. They are familiar with government-implemented programs on community forest management, as they go around these areas in the course of their work in mining. Ironically, they realize the similarity of speculative behavior in mining and in forests (whether community- or corporate-managed). They are also very well aware of the various perspectives and discussions on mining and actively participate when invited.

Ed grew up in Cuenca town in Batangas, a province south of Manila, and where he recalls viewing Mount Maculot every day through a large window in their house. He remembers seeing Taal Lake (a popular tourist attraction with Taal Volcano in the middle) from Cuenca on the ridge overlooking the lake.

At 15, he climbed halfway up Mount Maculot and three years later, he conquered his fears and found his way to the deeper forest and its ravines. In there, he experienced a personal connection with the place and its thickly vegetated forest.

Later, opportunities allowed him visit Mindanao and the Visayas where he saw other mountains and forests. But while mountains and forests are tourist attractions, he concedes that there is also the image of forests under siege due to poverty, the onslaught of heavy equipment, and increasing poor communities living in these areas.

In 1994, he visited Germany and saw its forests and plantations and was impressed by how this was made possible in an industrialized country.

By the time the Philippines passed the Mining Act I 1995, Ed got involved with the major mining companies that undertook exploration activities and his responsibility for community relations allowed him to engage with communities and local governments that host areas involving mineral exploration and development.

In Tampakan, South Cotabato in Mindanao, he thought it was helpful that the company did an inventory of the flora and fauna in the area. In Zamboanga, he worked with the company to establish how people will still benefit from the area when the mining is over. The strategy was in developing upland agriculture and planting upland rice, although he has to understand better the real benefits these will bring, as it appeared that people were not ready.

In some corner of his mind, he holds the view that it might be in some ways better that a mining company cuts through the forests than the *kaingineros* (slash-and-burn farmers), as companies will have access to better technology that clears the area more efficiently.



A workshop facilitated by ESSC in which Ed Coronel participated to better understand the prevailing conditions in Real and how best to respond to the needs of communities and local government

"I am tormented by forests. I hold a romantic view of forests, but at the same time also a pragmatic view, that forests are a collateral damage to progress, just like other things in society."

Ed Coronel



Aerial view of Atlas Mines in Cebu

Both Paul and Ed agree that within 20 years, the Philippines will have matured, the industry will have matured and become more responsible in operations. . . It will be a slow maturity, with pressure coming from other companies driving the system of responsibility. The best practice is to show that it works.

Ed also shared that mining and forests are best analyzed through the lens of governance. From an incentives' point of view, politics and governance constitute the greater stakes in mining activities. The politics will illustrate the exercise of authority and the compliance with pronounced commitments, while the governance will illustrate whether rewards and sanctions are operative, due diligence is complied with, and if erring companies are getting away with violations.

As someone who is part of the “soft end” of the mining industry, he struggles with the impact of mining on the environment and the communities and how the mitigating measures are addressing the impact.

“I am tormented by forests. I hold a romantic view of forests, but at the same time also a pragmatic view, that forests are a collateral damage to progress, just like other things in society,” Ed admits.

Paul grew up in Bayabas, Toril, Davao City, after his family migrated from Manila in 1969. His family had a farm at the foot of Mount Apo (the highest mountain in the country at 3,000+ masl). His grandfather, who used to be a government official after the Second World War, ran an *abaca* plantation, but there was no forest.

As a young boy, Paul loved outdoor excursions and visited the beach often. His initial exposure to forests occurred while doing interior geology in the Agusan area in Mindanao within the secondary forest of a large timber concessionaire. He explored forest areas and recalls to have always related his experience with people living there. In what he refers to as his then “immature mind,” those commercial forests were the actual forests.

In Samar (in eastern Visayas), he also explored forests mostly controlled by the New People’s Army (or NPA, the armed group fighting the Philippine government) and where he also saw what he refers to as the “poorest of the poor.” With the log ban imposed in 1986-87, he saw how people, saddened and deprived of their legal livelihoods, still continued cutting trees to survive.

As he became involved with other mining companies, various experiences come to mind. In the area outside the Subic zone (Zambales in Luzon), the political bickering in forest management projects was only a ruse to earn money for those in the decision-making positions. He also worked with a company in Nueva Vizcaya whose forested areas survived, but mainly due to the guards that secured and controlled the area and were paid for by the company. Part of the community development where Paul took charge was the planting of trees, part of the compliance that the company undertook, and without the participation of the Community-based Forest Management (CBFM) holders in the area.

For Paul, forests are always related to the social side, the poverty side. The managed forests he has seen so far are not in CBFM areas. CBFM as a tenurial right means one can do anything with the area, even put up a rest house.

The speculative behavior he associates with mining areas, he also sees in CBFM areas. “Do communities want to manage CBFMs, or do they want quick money?” Paul asks. A major incentive is survival by communities, and if the forest area is the water source, then the value of forests goes higher. But having a CBFM instrument or none makes no difference to those living inside forests.

At a macro level, he views land-use planning and management as essential in specific forest area management. Poor people put pressure on the forests as well, as that is their only source of income, due to lack of other opportunities and coupled with the lack of basic social services from the government. Easing that pressure can come about through a comprehensive approach to land use planning, with CBFM rights or without.

Paul is also asking whether the CBFM and ISF (Integrated Social Forestry) programs have had successes in providing income for communities, but which may have put unnecessary pressure on forests due to poorly designed and poorly monitored resource management frameworks.



The speculative behavior Paul Azarcon associates with mining areas, he also sees in CBFM areas. “Do communities want to manage CBFMs, or do they want quick money?”

At the micro level, what difference does it really make for poor communities between these acronymed projects and forest management projects of mining companies? There are reforestation and other projects factored into a mineral development activity that are part of a mining company's feasibility study. But will all companies do it? Who does the monitoring, the Mines and Geosciences Bureau (MGB) or the Forest Management Bureau? He thinks that the MGB should be more than capable of monitoring.

Small-scale miners are another story altogether. Paul describes them simply as ore collectors, and with no accountability and responsibility for the damage and impact wrought by their activities.

Both Paul and Ed agree that within 20 years, the Philippines will have matured, the industry will have matured and become more responsible in operations. An area of improvement should focus on the inclusion of China (which is currently a buyer, not an investor) in the industry.

It will be a slow maturity, with pressure coming from other companies driving the system of responsibility. The best practice is to show that it works. The learning experience with Lafayette that operates on Rapu-rapu Island is that "nobody in the industry wants to be like a Lafayette" and lose substantial capital in the process. The small to medium companies that have small to medium risks will survive, as they will be more than able to navigate the regulatory waters.

Both also share the view that major mine openings in the next 20 years will be limited as the Philippines is ranked very low as an unstable regime, with political and sovereign risks still very high. Even the Tampakan copper mine in Mindanao, generally viewed as a world-class mine, was sold earlier because of sovereign and political risks, and Ed and Paul do not see this mine opening soon, even with renewed and activated investment. In 1994 and 1995,

Tampakan was purchased at US\$4-\$5 per share, and sold later at US\$9-\$10 per share. Tracking the developments in the export-import banks will be crucial.

Paul sees that "mining will be re-inventing itself" and that there will be added revenues from preserving, not cutting, trees as carbon sinks and in focusing on income generating activities for communities in mining sites. Pollution control equipment and renewable energy options will be continuously explored to the extent of "getting profit from trying green, not cheaper" options.

In the end, both Paul and Ed see the cumulative impact of mining in 20 years as less than all the subdivisions being developed in Metro Manila. The process will build up slowly, at the same time shoring up confidence.

In terms of forests, regeneration and reforestation need to be seriously looked into and implemented as major elements in mining rehabilitation plans.