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## Investing in the Mapping Industry

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## Indirect Beneficiary NAMRIA – Strategic Planning

I am the principal geodetic engineer and the proprietor of RASA Surveying Company. We have been in the business for the last 20 years, doing different kinds of surveying jobs. When we started, we concentrated on land surveying. Then we expanded to hydrographic surveying. In the last five years, we entered the geospatial information system (GIS) and mapping industry.

That is how we came to work with NAMRIA. They have the global positioning system (GPS) and elevation benchmarks of the entire Philippines, and we participated in the propagation or expansion of those benchmarks. We also collaborated with them as one of their contractors on the levelling networks.

We are now working with them on a project to update the maps of different localities in the Philippines from a scale of 1:10,000 to 1:5,000 and 1:4,000. The details will be clearer, and the maps can be distributed by local government units all over the country. This will be very helpful in identifying geohazards, and in disaster preparedness in general. We will be doing this until 2020.

I can see that NAMRIA is now more proactive in disseminating information. I think they now have a better relationship with the private sector. In the past, I noticed that they were not so close to the geodetic professionals or to the industry as a whole. Now they have small fora and talks for discussing projects and the country's migration to other geodetic systems.

NAMRIA has started using the international terrestrial reference frame (ITRF), so Engineer Charisma Cayapan has been conducting a lot of fora with private surveyors to inform us about what will happen with this transition, and how it will affect the industry. We get to know NAMRIA's plans for the next few years and what benefits the private sector can get from them, such as services we can take advantage of.

Through this sharing of information and their outsourcing, they are helping us in the industry experience mapping technology. Whereas they worked on their projects all by themselves before, they are now able to share information so that we industry professionals can elevate our capabilities. Without projects from the government and the private sector, we cannot upgrade ourselves. These projects enable us to slowly upgrade our knowledge and our technology.

In this sense, NAMRIA helps the small and medium enterprises. The projects generate jobs and money, so this partnership also helps the economy. If you confine the money within the government agency, it does not produce anything—it only benefits the entity. But if the money goes out, it creates a lot of things.

I have also observed that for the past three years, NAMRIA has been attending more international conferences. They do this for purposes of updating themselves, and they have influenced me in this regard. So I also started attending conferences, and when I did this, I learned a lot.

At my first conference in Malaysia, for example, I learned that there are a lot of software programs available for the geodetic industry—and not only that, but a lot of opportunities as well. Maybe without attending these international conferences, I would not be this proactive in investing in this business.

Aside from my work as a surveyor, I teach part-time at the University of the Philippines College of Engineering. One of the subjects I teach is Hydrography. I want to influence my students to go into hydrography because we are an archipelagic state. Most of them do not know where to go when they graduate. They do not know what projects are out there. Most of the 8,000 or 9,000 surveyors in the Philippines just do basic land surveying. With NAMRIA, they can go into mapping, hydrography, GPS, or GIS. These are specialized opportunities. If you get to learn these fields, it will be very rewarding.

I see that surveyors and the mapping industry are badly needed in each country. Without maps, without us surveyors, there would be no infrastructure development. We are the prime movers of infrastructure development; without us, you would not know your position and elevation. I can see that as long as there is development—especially for us, a developing country—there will be a lot of room for more projects and more technology that can help us improve.