

## IPSTAR Empowers USAID Broadband Connectivity Program in Mindanao

The island province of Basilan has a population scattered throughout mountainous and heavily forested lands with few telecommunication network in place. About 80 percent of its 500,000 population live in the rural area, where most communities subsist through farming and fishing. People living in remote villages are often isolated due to the lack of telecommunication infrastructure – contributing towards the widening digital divide gap between the urban and rural areas.

### The Situation

Many schools in Basilan are beyond the reach of broadband Internet. It is not viable to rollout terrestrial lines for the remote schools due to the high installation cost of copper wire.

A microwave link is also not suitable for very harsh terrains, and schools that are 20 kilometers away from the nearest base station. Microwave links require a line-of-sight between the base stations, making it difficult to implement in heavily forested and mountainous islands. The line-of-sight problem can be partly solved through building a higher mast, but this can raise the deployment cost by up to 30% or more. In addition, this system requires a repeater to be installed for every 50-kilometer distance from the main link. Therefore, in difficult to reach remote towns in Basilan – like Lamitan – this poses a significant problem.

The conflict-affected town of Lamitan was briefly in the international news few years ago when it became the site of insurgency in Mindanao. The conflict has ended, but the depressed local economy, the lingering security fears and the absence of basic communication services – such as telephone lines and broadband Internet – have kept this remote community locked in isolation.

### Distance Learning via IPSTAR

Therefore, the concept of teachers and students enjoying fast and always-on broadband access has been considered a dream for many rural schools. But not until recently when the Lamitan National High School has been provided with an IPSTAR broadband Internet connection by the We are IT (WIT), under the Computer Literacy and Internet Connection (CLIC) project of USAID.

The impact of IPSTAR on the teachers' instructional style has been dramatic. The Internet allows them to access more updated educational contents that are oftentimes not available in their textbooks or in the school library. In addition, personal email addresses were provided to the school teachers – most of them for the first time. "I really don't know how to thank you for connecting us to the world", said Violeta Arreola, Math Teacher, on her first-ever email.

High school student Rea Tarro is also benefiting from the newly installed broadband Internet. She is using the Internet to research more advanced topics on Science and to help her with the other subjects, such as English and Math. "My favorite educational websites are MathWorld and National Geographic", said the 14-year-old student.



### About CLIC

The Computer Literacy and Internet Connection (CLIC) project is implemented under USAID's Growth with Equity in Mindanao (GEM) program. The project aims to bridge the digital divide between students in wired cities and those in hundreds of impoverished communities in the Philippines. To date, more than 700 schools under CLIC have been connected to the IPSTAR – providing broadband Internet access to more than 35,000 teachers and 700,000 students in Mindanao.

### About WIT

The We are IT (WIT) is in the business of providing satellite services to address the broadband connectivity needs of every enterprise, government and educational institution in Asia-Pacific. It maintains offices in Canada, Hong Kong and the Philippines. WIT is the gateway operator and a service provider of IPSTAR in the Philippines.