Welcome to Spotlight. I’m Liz Waid. And I’m Ryan Geertsma. Spotlight uses a special English method of broadcasting. It is easier for people to understand, no matter where in the world they live. Alfredo Moser is a poor man. But he has given a very valuable gift to thousands of people. Many people around the world do not have electricity to light their homes. But Moser has given them a light that does not need electricity. He invented this special light made from a plastic bottle. He shared the idea. And the idea spread. Now, people all over the world are using this invention. Today’s Spotlight is on Alfredo Moser and his amazing bottle lights. Alfredo Moser is a mechanic. He is skilled in using tools and fixing machines. He lives in the city of Uberaba in Brazil. Here, people often experience electricity blackouts. For long periods of time, people lose their power supply. And they have no light in their homes. In 2002, during a blackout, Moser had an idea. It was an idea for a light made from a plastic bottle. Moser’s bottle light was a simple invention. It uses water and the sun’s natural light to fill a room with light. But how exactly does this bottle light work? First, Moser fills a clean and empty plastic bottle with water. Then, he adds chlorine to the water. This chemical cleans the water, so it does not turn green in the sunlight. Next, he carefully makes a hole in the roof of the house. He pushes the bottle up through the hole. The top of the bottle is now above the house. But, the bottom of the bottle is in the house. Finally, Moser attaches the bottle to the roof, using a thick sealant. This prevents rain from leaking into the house. Moser’s bottle light works by a process called refraction. When the sun shines into the bottle, the water bends the sunlight and spreads it around the room. For Moser’s light to work, there must be sunlight. So it cannot work at night. But during the day, it provides strong, low cost light! Moser told the BBC World Service about the power of the bottle light: “An engineer came and measured the light. It depends on how strong the sun is but it is about 40 to 60 watts.” Moser put bottle lights in his own house. He also put bottle lights in other local homes and stores. More and more people heard about his bottle lights. And more and more people put Moser’s bottle lights in their houses. People like the bottle lights because they are easy to make and do not cost much money. They also last a long time. Moser has bottle lights in his home that are over ten years old. Bottle lights are useful when there is a blackout. But, people can also save money when they use the bottle lights instead of electricity. Moser told the BBC World Service, ‘There was one man who put the lights in his home. Within a month he had saved enough to pay for the necessary things for his child who was about to be born.’ People in other countries also learned about Moser’s bottle lights. In the Philippines, the organisation MyShelter Foundation heard about them. This organisation builds houses in ways that do not harm the environment. Workers use many recycled materials. These materials were once used for a particular purpose, but the builders re-use them for a new purpose. MyShelter thought Moser’s bottle lights were a great idea! In 2011, MyShelter started a project called ‘Liter of Light’. This project uses bottle lights to bring light to communities without electricity. In the Philippines many people do not have electricity. They often live in small houses built very close together. The houses have no natural light. So, even during the day, many families work, cook and eat in near darkness. Illac Diaz is the Director of MyShelter Foundation. He believed that the bottle light idea would spread quickly. He told CNN: “Once people see the advantages to the community, they will seize the technology. It will spread like a drop of liquid.” Diaz was right. People in the Philippines soon saw that the lights helped families live better. Eduardo Carillo was one of these people. He lives in a poor area in Metro Manila. And he told the Guardian news organization: ‘Before we had the bottle light, the walkways to our house were very dark. Going into the house made it even darker. The children are no longer frightened. They are happy now. And they laugh because they can play in the house during the day instead of playing on the streets.’ People spread the news about the amazing bottle lights very quickly. One mother told Reuters: ‘My friends asked, “Is that only water?” I said to them. “It is only water.” A lot of friends came and got interested.’ Soon, many people wanted these lights. So MyShelter trained people to make the lights and put them in homes. By 2013, 140,000 homes in the Philippines had bottle lights. But MyShelter did not restrict its work to the Philippines. It spread the ‘Liter of Light’ project around the world. ‘Liter of Light’ works in 15 countries, including Cambodia, India, Kenya, Spain and Vietnam. And by 2013 360,000 homes around the world had bottle lights. Diaz estimates that in 2014 one million people around the world will have bottle lights in their homes. Alfredo Moser’s bottle lights help families live better. But the lights also help the planet. Unlike electricity, bottle lights do not pollute. They are carbon free. Every light saves 64 kg of carbon waste a year. Diaz praises Moser’s idea. He told the BBC World Service: ‘Alfredo Moser has changed the lives of a large number of people, I think forever. We want him to know that there are a great number of people who respect what he is doing.’ Moser did not imagine that his simple idea would change the lives of so many people around the world. His idea has not made him wealthy. But he is happy that so many people have better lives because of his idea. And Moser believes the bottle light is the work of God. He told the BBC World Service: ‘It is a divine light. God gave the sun to everyone. And light is for everyone.’ The writer of this programme was Katy Blake. The producer was Luke Haley. The voices you heard were from the United Kingdom and the United States. All quotes were adapted for this program and voiced by Spotlight. You can listen to this program again, and read it, on the internet at www.radioenglish.net. This program is called, ‘Alfredo Moser and the Amazing Bottle Lights’. You can also leave your comments on our website. Or you can email us at radio@radioenglish.net. You can also find us on Facebook - just search for spotlightradio. We hope you can join us again for the next Spotlight program. Goodbye.