

# New Roads Could Lead To Less Plastic Waste

By: Paige Platter

Everyone hates the roads we have now - they crack, have potholes and they're just a mess. People hate that there's so much plastic bottle waste as well. Plastic bottles floating around our oceans, killing wildlife and destroying the planet, but what if we could fix both problems at once? India, Australia, and the Swiss Alps are starting to, by using melted down, used plastic bottles and plastic shards, mixed with asphalt to make roads.



How that would work? Well asphalt, what we usually use to make roads, are made from gravel, sand, or stone mixed with bitumen, a black tar-like substance. Which is then heated and poured (International Water Power and Dam Construction). Well, bitumen and plastic are made from almost exactly the same ingredients. With one difference, bitumen is naturally occurring and plastic is manmade, so scientists took the plastic and replaced the bitumen in the equation, and it worked. Not only did it work, but it worked better than regular asphalt. The plastic would expand and contract with the weather and wouldn't break, meaning no potholes. (Jamshedpur *Plastic Roads Initiative Is A Lesson For All Indian Cities!*). So if it makes fewer potholes and helps the environment, why isn't everyone doing it?



Well, the roads require compatible plastics. Otherwise, they fail and the plastic can breakdown into microplastics that get absorbed into the soil and waterways, similar to pleather and other plastic-made clothing products. (Sribala Subramanian *Plastic roads: India's radical plan to bury its garbage beneath the streets*). Can plastic roads work without harming the environment? Are they even a good idea? Only time can tell us.