

Editorial

Basket Case

Globally, approximately one million plastic bags are consumed each minute. Many of the bags feature warnings to individual users: There is a serious risk of suffocation and death if plastic bags cover the face or otherwise block nostrils because plastic is largely impermeable, even to air. Most people, except the determined, heed the warning, and plastic are used safely, at least until they are thrown away at the end of their useful lives. And that is when the serious risks to society and the world actually begin. This is because petrochemical plastics degrade extremely slowly in the environment under natural conditions.

Since the emergence of the “plastic age” in the 1960s, a tremendous amount of plastics have been manufactured and thrown away. Most of these plastics remain in our cities, gutters, soils, waterways and the ocean. In many large African cities, it is common to find mounds of plastic dumps with their badly decomposed contents; and in some places, these dumps are set on fire to reduce their sizes and threat to public health. But invariably, such street-level incineration of plastics produces noxious fumes that may be even more damaging to health than the solid form of plastics.

What is the solution to this problem? In Africa, at least, it seems we are headed in the wrong direction. At the *Sheda* Science and Technology Complex in Abuja, Nigeria, scientists working in the Biotechnology Advanced Laboratory are seeking ways of making biodegradable plastics where some starch molecules are embedded in petrochemical-based polymers. The thinking is that the easy degradation of the starch will make the plastic fall apart. But the petrochemical polymers will remain – and no less hazardous. In South Africa, others are working on photodegradable plastics that break apart in sunlight after prolonged exposure. But this merely hastens the release of hazardous polymers and plasticizers that have been shown to have adverse health effects. To counteract ineffective waste management programs in Cameroon, some want to recruit “street children” to recover and recycle thrown-away plastics. This is a dangerous way to occupy children who should be in school.

Why don't we retreat to a time before plastics when African markets are adorned with a wonderful array of gloriously colored, hand woven baskets? These grass and other bio-fiber baskets provided employment for weavers, communicated important cultural features, and served very useful purposes for carrying things. Today, African baskets are relegated to tourism shops where they are purchased by visitors to display them cutely on walls and dining tables. Bio-fiber baskets are durable, reusable, recyclable, and utterly harmless in the environment. Why aren't our materials scientists and biotechnologists working to make these home-made baskets even better? Make them water-tight, for example. There is plenty of marvelous indigenous knowledge that has been sacrificed on the altar of “high” technology. It is high time to rediscover the art of making and using African natural baskets.