

Invent for the Planet Need/Problem Statements

#	Thematic Area	Tagline	Needs Statement
1	Waste Management	Smart recycling bins	In many areas where recycling bins are located, there is still a lot of waste which ends up in the wrong bins. If the recycling bins can be designed to quickly identify whether the waste about to be thrown in the bins is correct or not and notifies the person, then it may improve the efficiency of the sorting process. These smart bins could also gather data on recycling amount and recycling participation rate so that these data can be analyzed to develop waste recycling awareness campaigns.
2	Food Security	Avoiding Food Waste	Global food waste amounts to 30-50% of all food produced. In developing countries, most of the loss occurs during production, transport, or storage stage, however about 100 kg per person, per year is wasted at the consumption stage (supermarket, restaurant, or home). We need tools that will help reduce food waste in any of these stages of the supply chain.
3	Food Security	Detecting pesticides	While pesticide regulation exists in many developing countries, it is not often systematically enforced. As a result, levels of pesticides in consumable food items can greatly exceed the levels that are considered safe for human consumption. We need a tool that will help address this issue at the wholesale, retail, and/or consumer level.
4	Medical	Equipping rural health workers	<p>Access to medical services, especially in rural area, is difficult. It becomes even more challenging if you require a specialist physician. Most qualified clinicians are focused in the urban areas and are often not able to cover large areas of rural populations due to distance and cost. For this reason, community health workers (CHWs) are becoming increasingly important in rural settings for providing primary healthcare. In addition, CHWs speak the same language, share the same ethnicity and are of the same socio- economic status as the patients they serve allowing them to obtain more accurate or pertinent information. The problem is that CHWs are not fully trained and are often ill equipped for appropriate diagnostics and treatment of patients. Further, they do not have a reliable communication method with physicians.</p> <p>What low cost tools and/or training can be provided to CHWs to enable them to be more efficient in health delivery and to better utilize the strong clinical expertise in urban centers.</p>

5	Waste Management	Reuse of Waste Items	Waste continues to grow as we replace technology frequently, like cell phones, or even as we replace items to improve energy efficiency and sustainability (e.g., replacing CFLs with LEDs). Pick a particularly wasteful or toxic item that is commonly replaced and determine a new use for the item to reduce the likelihood for it to go to the landfill.
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