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Africa's Next step

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As technology has rapidly grown over the past few years, the price of electronics has dramatically gone down. While most industries have seen huge benefits from technology in either decreased overhead costs or easier work, solar panels in particular have enormously benefited from this price drop. The price of solar panels has dropped from \$5 per kilowatt in 2005 to \$1.5 per kilowatt today, and in the recent report “Solar Power: Darkest Before Dawn,” there are projections that there will be a price reduction of 40% by 2015 and another 30% by 2020, bringing the price down to around \$.50 per kilowatt (Aanesen, Stefan, and Dickon). As this trend continues, it will become more economically feasible to adopt solar panels as a legitimate source of energy. There is one region of the world that will benefit enormously from solar panel prices dropping and that is Africa.

Looking at Africa’s history, the continent has rarely enjoyed any type of economic success, and besides Egypt and more recently South Africa, the region has some of the economically poorest countries in the world by GDP per capita. In fact, 18 of the 20 poorest countries in the world are in Africa, which is mainly because of European colonization and instability for dictatorship (“World Economic Outlook”). However, in the near future I see Africa becoming a leader in renewable power, and depending upon how they position themselves, they could become an economic power.

The first step towards success: African governments need to start their own solar panel companies or encourage solar panel companies to build products in Africa. Getting solar panel manufacturing will take international help, but the average wage of a worker in South Africa is \$2500 a year vs. \$7500 in oriental nations like China. This makes Africa attractive to investors and competitive against oriental nations because they have a lower cost of labor (Rapoza). It is important that African governments build solar panels in Africa for 3 reasons.

1. It will provide many jobs to Africans
2. It will give Africans the chance to buy solar panels that are made in their continent.

3. Revenue from sales of solar panels in Africa and abroad will grow the African economy

The next step is to get solar panels to the rest of Africa. A recent study by *Scientific America* found that if just 1% of the Sahara Desert were covered in solar panels it would generate enough power to power the entire world (Delucchi and Jacobson). Africa has an abundant amount of solar energy but the best thing about solar panels in a large and remote continent like Africa, is that solar panels do not need infrastructure to power remote villages. There isn't a need for a grid system, so each village could use solar panels to power everything. Solar panels could be used for tasks that are currently done by hand, like pumping water, or they could get rid of dangerous generators that are used to power lights. The best thing solar panels could do for remote villages is to allow them to access the internet, which gives them the ability to be educated, get news, and communicate with the rest of the world. In addition to providing energy for remote villages, there are numerous other benefits besides just getting electricity. If solar panels can be put at a slant that provides shade for land beneath, the shade will also catch moisture in the morning air, which will allow plants and vegetation to start to grow underneath it. Crops grown below solar panels wouldn't create enough food for a village, but shade gives the ability to grow a few extra crops.

The last step toward success is to start selling solar panels to the rest of the world. There are already a lot of people that make solar panels, but if African companies were able to competitively price their items, these companies could generate money to help grow the economy in Africa. With more money, African governments can invest in research and hire people to engineer new, higher efficiency products.

Most investors view Africa as a mystery for a return on investment, but Africa is an emerging market and many Sub-Sahara countries have been growing at 5% a year for the last two decades (Broadman). They are leapfrogging in technology for cell phones and the Internet, but they haven't received investments in energy because of political instability. This instability has been decreasing because of technology and education, and will continue to go down with cheap, reliable energy from solar panels.

There are so many great things happening in Africa from charity organizations, but instead of charities trying to help by building schools or hospitals, they should help Africa become self reliant. I am asking people donating money this holiday season to give money to organizations that promote solar panels in Africa. In my opinion the best way to help Africa become a successful region is to give them the opportunity to become energy independent. With energy, the produce and all the extra benefits from solar panels, African countries will be able to have a stronger and more stable government. Then they can start building their own schools and hospitals and ultimately raise living standards for the rest of the world.

Bibliography

Aanesen, Krister, Heck Stefan, and Pinner Dickon. "Solar power's next shining." *McKinsey & Company*. McKinsey & Company, n.d. Web. 30 Nov 2012. <http://www.mckinsey.com/Client_Service/Sustainability/Latest_thinking/Solar_powers_next_shining>.

. *World Economic Outlook*. International Monetary Fund, n.d. Web. 30 Nov 2012. <<http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf>>.

Delucchi, Mark, and Mark Jacobson. "A Plan to Power 100 Percent of the Planet with Renewables." *Scientific American*. Scientific American, 26 2009. Web. 30 Nov 2012. <<http://www.scientificamerican.com/article.cfm?id=a-path-to-sustainable-energy-by-2030>>.

Rapoza, Kenneth. "U.N. Shocker: Chinese Workers Underpaid." *Forbes*. Forbes, 04 2012. Web. 30 Nov 2012. <<http://www.forbes.com/sites/kenrapoza/2012/04/04/u-n-shocker-chinese-workers-underpaid/>>.

Broadman, Harry. *Navigating the risks and opportunities in emerging markets*. PWC, . Print. <<http://www.pwc.com/us/en/view/issue-15/navigating-risks-opportunities-emerging-markets.jhtml>>.