

# The issue of poverty and sound environmental management

[Sociology](#), [Poverty](#)



To put into perspective the issue of poverty a CNN report published on July 8, 2015 suggested that 71% of the world's population remain low-income or poor, living off \$10 or less a day, The data and result was from a Pew Research Center report that looked at changes in income for 111 countries between 2001 and 2011. However the planet has the capacity to sustain the over seven billion people on it and to provide them with the resources they need to survive. It is thus evident that what the world needs is a sustainable way to manage and distribute these resources which will form an integral part in reducing extreme poverty and boosting shared prosperity.

These can be achieved through sound environmental management. Since the environment provides food and other resources that can be used to feed the hungry some which are the millions of children which die daily due to inadequate access to these resources, poor people also depend mostly on the environment as a means of livelihood and degradation of such environment will affect them the most. Poverty also has a spatial dimension varies within regions; it also clusters within a locality and may relate to geographical factors within the area. It is thus essential that decision makers like the World Bank know the spatial distribution of poor people like where poor people live, where the environment is affected the most , and where development lags. Providing these data and analyzing it can best help the World Bank determine how best to use its resources for developmental gains, reduce extreme poverty and boost shared prosperity.

As a Geomatics Engineer with good understanding of GIS and I believe that Poverty is a multidimensional problem which is best tackled using a

multidisciplinary approach hence it must be combined with other economic and poverty reduction programs. GIS as a tool can be used to manage many if not all social and environmental processes that could be captured accordingly and the information content can go as low as the family household level. Information required for weather forecasting, Land use cover and other dynamic information can also be managed with a GIS platform. I thus hope to use my knowledge of this tool as a means to tackle this complex problem of poverty.

One way will be to bring the geographic and socio-economic factors together and use the statistical and spatial analytical tools to identify among these factors the correlation with extreme poverty, the spatial relationship with poverty for a given region, The results of this analysis can then be used as a means to improve not just poverty alleviation programs but to improve efficient delivery of aid that can boost shared prosperity. Decision makers need to see the actual reach of their programs which can be made possible through dynamic field maps which is updated as the project is ongoing. Since spatial clustering of the poor depicts vulnerable areas that need access to the resources being provided. The use of route analysis on a GIS platform can provide information on the fastest route and most accessible route to reach these areas.

Finding the answers to the following questions: who is poor? Where can we find the poor? Why are they poor? And how long have they been poor? This can aid decision makers to better understand and identify socio-economic and developmental variations among regions which are essential for

planning purposes. This makes the production and use of poverty map invaluable for extreme poverty reduction. Proper distribution and allocation of resources can be achieved using geographic targeting techniques and combining it with across the board subsidies to ensure maximizing the coverage of the poor while minimizing leakage.

Nearly all regions of the world are demarcated by political boundaries thus limiting poverty analysis to that political strata . However the use of geographic information systems has features which allows it to generate and manage spatial data that refer to spatial areas other than those defined by political boundaries and thus provides a unique relevance to poverty analysis. By using high resolution data it will be possible to use data estimated according to their geographic locations and just those reported by administrative units. These can then be combined with socio economic and environmental variables along with population distribution. Analyzing these data by looking at the relationships among this variable will be clearly with maps. The results may include but not limited to information like the relationships between poverty -agro-energy shortages and environmental degradation.

Since Land-cover is an essential variable for regional planning as well as for the survey of environment dynamics. It basically affects the biogeochemical cycles and global warming and this helps in gaining relevant insight to sustainable development, understanding soil erosion and biodiversity monitoring. This makes it of an important theme in many cartographic inventories and monitoring of environmental phenomena. These data can be

obtained through techniques like remote sensing. This could be airborne hyper spectral, which makes use of passive or active sensors that (passive sensors, which simply detect and respond to some natural occurring energy from the physical environment like the sun while active sensors requires an external source of energy to operate.) which can then be organized for automatic classification.

By combining many of these techniques there will be minimal resource loss which can then be used to boost shared prosperity thus improving the standard of living and creating better life for individuals regions and communities that would have still been below the poverty line.