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Aditya Anand Lanjewar

ABSTRACT

There are several definitions of poverty in India both income-based poverty definition and consumption-based poverty definition. The vital nature of study on energy poverty comes from Income poverty, i.e. how to measure energy poverty. Income poverty is usually based on measure of minimum consumption of food and non-food items necessary to sustain life. The average energy consumption of households falling within 10% range of official economic poverty line have been considered to determine energy poverty line. It is worthwhile to note that in 'poverty line' approach, an energy-poor lies below the cut-off. Poor People are Energy Poor and has low income, low energy consumption and no access, or limited access, to modern energy fuel. Poverty rates are typically higher in rural areas, meaning that approximately three out of four persons categorized as poor live in a rural zones.

Keywords: poverty, energy poverty, income based poverty, consumption based poverty, energy poverty line.

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Definition of Energy Poverty in India

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SUMMARY

There are several definitions of poverty in India both income-based poverty definition and consumption-based poverty definition. The vital nature of study on energy poverty comes from Income poverty, i.e. how to measure energy poverty. Income poverty is usually based on measure of minimum consumption of food and non-food items necessary to sustain life¹. The average energy consumption of households falling within 10% range of official economic poverty line have been considered to determine energy poverty line. It is worthwhile to note that in 'poverty line' approach, an energy-poor lies below the cut-off². Poor People are Energy Poor and has low income, low energy consumption and no access, or limited access, to modern energy fuel. Poverty rates are typically higher in rural areas, meaning that approximately three out of four persons categorized as poor live in a rural zones³.

Keywords: poverty, energy poverty, income based poverty, consumption based poverty, energy poverty line.

I. DEFINITION OF ENERGY POVERTY IN DIFFERENT COUNTRIES (WORLD-WIDE)

There is no universal definition of Energy poverty. Different countries and regions have given their

own definitions based on the social, economic and environmental factors. However, in developed countries, energy poverty is usually defined based on energy affordability, while in less developed countries; it is defined based on clean energy accessibility.

1.1 Definition of Energy Poverty in Indonesia

Energy poverty is defined as the lack of access to basic energy source for simple cooking and heating at household level⁴.

1.2 Definition of Energy Poverty in Africa

Energy poverty can be defined as the lack of adequate modern energy for the deprived of basic needs of consumption like lighting, cooking, warmth⁵.

1.3 Definition of Energy Poverty in Uganda

A simple definition of energy poverty is that a household without access to fundamental requirements of human needs i.e. electricity or clean technology⁶.

¹ Dewa Ayu Putu Eva Wishanti, Alleviating energy poverty as Indonesian development policy inputs post-2015: improving small and medium scale energy development, *Procedia Environmental Sciences* 28 (2015) 352 – 359.

² Hippu Salk Kristle Nathan and Lakshmikanth Hari, Measuring Energy Poverty: A Households Level Analysis of India, *ICSSR*, 09 (2018) 72.

³ Joseph Ayoola Omojolaibi, Reducing Energy Poverty in Africa: Barriers and the Way Forward, *International Association for Energy Economics (IAEE)*, 02 (2014) 29-32

⁴ Dewa Ayu Putu Eva Wishanti, Alleviating energy poverty as Indonesian development policy inputs post-2015: improving small and medium scale energy development, *Procedia Environmental Sciences* 28 (2015) 352 – 359.

⁵ Joseph Ayoola Omojolaibi, Reducing Energy Poverty in Africa: Barriers and the Way Forward, *International Association for Energy Economics (IAEE)*, 02 (2014) 29-32.

⁶ Okulony Samuel, Energy Poverty In Uganda The Role Of Renewable Resources, *Africa Institute for Energy Governance*, 04 (2014) 01-15.

1.4 Definition of Energy Poverty in Mozambique

Energy Poverty is defined as an Inefficient cooking technologies and poor access to the electricity in rural areas⁷.

1.5 Definition of Energy Poverty in Pakistan

Energy poverty is defined as “The lack of access to sustainable modern energy services and products”⁸.

II. CALCULATION

In a village, an Indian household consumed about 1 unit (kWh) of electricity per day on an average; enough to run lightening up 2 tube-lights, ceiling fan, 1 television and 1 mobile charger. Total 30 units (kWh) of electricity per month been consumed by one family. The average 1 unit (kWh) power tariff in India around Rs. 5.00/-. Then, Total 30 units (kWh) power tariff cost Rs. 150/- per month by one family of five members. Now, it is easy to calculate an amount of energy consumed in a village per month, on an average by 100 families cost Rs. 15,000/-.

Income poverty in rural cost Rs.100 per day income earn (by one family member). Then, Rs. 500 per day income earns (by five family members). Net Income per month by one family of five members cost Rs. 15,000/-.

The consumption of food grains like rice, wheat and pulses used in the village. Now, let say on an average an ordinary person in a village consume 2000 calories (2 kcal) of food per day. Total 60000 calories (60 kcal) of food consumed by one person per month. Then, Total 10,000 calories (10 kcal) of food consumed by five persons in a family per day and 3, 00,000 calories (300 kcal) of food consumed by five persons in a family per month.

⁷ Mozambique Energy Situation - energypedia.info.

⁸ Falak Sher, Akhtar Abbas, Rehmat Ullah Awan, An investigation of multidimensional energy poverty in Pakistan: A province level analysis, International Journal of Energy Economics and Policy (IJEPP), 01 (2014) 65-75

Average calories burned 8 kg by one person per month and 38 kg by five persons in a family per month. Consumption poverty in rural cost Rs. 800 per month (by one family member) and Rs. 3800 per month (by five family members).

III. CONCLUSION

Poverty Definition in India: Poor Section of the society are unable to fulfil their bare necessities of life. Based on the analysis of definition of Energy Poverty in different Countries, these are the issues or elements going to describe Energy Poverty in India i.e. cooking, lighting, television and mobile charging. ”. On an average, in rural area the minimum amount of calories of food for a household of five members the poverty line per month equals 40000 calories (40 kcal). If you are getting above 40000 calories (40 kcal) then you are not poor.

Then I come to conclusion “*The definition of Energy Poverty in India says:* Lack of basic Energy needs or necessities such as cooking, lighting, television and mobile charging”. On an average, in rural area the minimum energy requirement for a household of five members the poverty line per month equals 40 units (kWh), If you are getting above 40 units (kWh) amount of energy then you are not Energy Poor.

Definition of energy poverty line as the minimum quantity of physical energy is needed to perform basic needs such as cooking, lighting, television and mobile charging. Energy poverty line as the threshold point at which energy consumption begins to rise with increases in household income. At or below this threshold point, households consume a bare minimum level of energy and should be considered as energy poor i.e. energy poor lies below the cut-offs. For a household of five members the poverty line on an average has been fixed at a monthly income of Rs. 12,000/- in rural area. If you are earning above Rs. 12,000/- then you are not Income poor. For instances, defining energy poverty as “households which spend more than 10% of their income on energy would consider *another way of defining energy poverty line*”.