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Photovoltaics and Development

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23.1 ELECTRICITY AND DEVELOPMENT

23.1.1 Energy and the Early Man

Survival has always been the main preoccupation of mankind. For many thousands of years, food, shelter and protection against harsh weather and wild animals were the primary requirements of early man. In the early days of humanity, people spent most of their time hunting and gathering, and hence, energy cycles in primitive societies were extremely simple: human energy was put into the pursuit of game and the manufacture of tools and weapons; wood collection to keep the fire burning for cooking while at the same time providing warmth and lighting was also an important activity. Food from the hunt was the basic fuel for human energy and the leftover animal grease also contributed to heat and light the shelter to maintain a suitable microclimate.

Over the years, early man incorporated new options to fulfill the basic requirements of survival, and at the same time altered the energy cycles of primitive society. Gardening was added to fishing and hunting as a source of food. Additional human energy had to be put into planting, weeding and harvesting. Products from gardening provided a more predictable source of food energy for humans and the basic feedstock for raising domestic animals, which in turn became the source of high quality protein and eventually an additional source of power. Gardening evolved into agriculture, which, along with animal husbandry, eventually displaced hunting as the main activity for survival. At some point in time, domesticated animals were incorporated to take away from humans the burden of load-pulling and back-carrying.

A time came when technology was developed to simplify everyday productive activities. Along with the dawn of progress came larger and larger requirements for