The idea of mission in the context of Christianity has to do with movement of an individual, groups or organizations arising within a Christian religious conviction and tradition pertaining to witness by word and deed, at home and abroad, to the beliefs of the Christian religion, so that others may come to know and live the truth as understood by them. Poverty on another hand can be said to be condition of having insufficient resources or income. In its most extreme form, poverty is a lack of basic human needs, such as adequate and nutritious food, clothing, housing, clean water, and health services. In the view of humanists, extreme poverty can cause terrible suffering and death. The poor are believed to be people who mostly live in developing countries of Africa, Asia, Latin America, and Eastern Europe. They struggle daily for food, shelter, and other necessities of life and often suffer from severe malnutrition, epidemic disease outbreaks, famine, and war. Incidentally most of the mission territories of the world are also the poorest of the world. Thus in the mind of a common and ordinary Christian of these territories, the idea of mission in practice is closely related to poverty alleviation such that most often missionaries are first and foremost seen as people who bring needed development to their door steps. For this reason, for any mission to be adjudged successful, it must incorporate poverty alleviation mechanisms as necessary tools of evangelization. Indeed over the years, this seemed to be the techniques adopted by the European missionaries in their territories especially Africa. It would look like following the footsteps of Christ, whose ministry on earth went as far as incorporating the care the suffering and destitute by alleviating their conditions through both practical provision for their needs and spiritual nourishment. As the question of the necessity of mission persist, so also that of poverty alleviation. But must the two continue to be viewed together despite the tremendous technological advancement in our globalized world of the 21st century? This is the thrust of this paper using the Nigerian experience of its many years of missionary encounter. Using a historical, social and economic analysis, the paper examines the practical challenges of mission as evident most often in the poverty of most of the mission lands in the third world. But realizing that the world has become a global village, to what extent do these challenges affect the enthusiasm of missionaries and their home countries especially, the Europeans as they are continuously expected to alleviate the condition of life of those in mission territories despite the economic meltdown they face? The paper concludes that the missionary of today must not be rich to be on mission as current experiences show the reverse of missionaries from poor countries of Africa especially Nigeria on mission to Europe and other developed countries.