

1.1. Background

Malnutrition and ill-health among nutritionally vulnerable groups are prevalent in areas where poverty is obvious to observe. Additionally, the worst forms of poverty are more commonly found among developing countries. Thus, malnutrition and ill-health are commonly present among developing countries (Gaiha, 1997). The omnipresent of malnutrition and ill-health during the life cycle can create negative irreversible outcomes such as physical ability impairment, lower cognitive function, reduces the productivity and drains family savings (Pena and Bacallao, 2002). Without any specific interventions to prevent malnutrition and ill-health among the poor, these outcomes will lead to lower quality of human resources. In other words, poor people are associated with malnutrition and ill-health, malnutrition and ill-health maintains poverty, which in the end create a vicious cycle called the poverty trap (Wagstaff, 2002).

The straightforward relationship between malnutrition and poverty becomes more complicated if relative deprivation or poverty is not so obvious to observe. It is difficult to indicate whether malnutrition is an outcome of poverty or not among areas without the existence of relative deprivation, since there are other determinants which influence the nutritional status of an individual (Islam, 1997). Additionally, at macro level, poverty and income inequality interact with each other very closely. Reducing poverty would mean increasing the mean income of the poor, which eventually will lead to a decrease in inequality (Goudie and Ladd, 1999). High prevalence of poverty in a developing countries is found to be associated with high income inequality and vice versa (Datt and Ravallion, 1992; Jayaraman and Lanjouw, 1999; Kanbur, 2001). If reducing poverty would increase the average poor income level, then the poor will have higher access for better health

services and higher level of food intake. With higher level of food intake and better access of health services, the threat of malnutrition is less apparent among the poor.

However, there are many underlying factors that influences nutritional and health status. Several of these determinants are dependent on income level and others are not. Deprived households with very low purchasing power have limitation in order to fulfill their many needs. How adequate can a household supply their food and how accessible are they to a better health services are being directly influenced by their level of income. Though it is generally accepted that food intake and health services are not the only determinants of nutritional status, it is known, that both of these factors are dependent on income (Crooks, 1999).

Solving the problem of income does not directly imply, that it will automatically improve the nutritional and health status than previously. Example from Ravallion (1990) indicated that as average income rises, the nutritional status of children under-five did not improve significantly. Non-dependent income determinants should also be adequately treated, since their role in maintaining the nutritional and health status are not less important than the income-dependent determinants. However, it is obvious that when income is lower there is a significant barrier for the households to fulfill their daily needs. In several deprived rural areas of Indonesia, lower living standard is always characterized with lower income level and it is associated with lower nutritional status of vulnerable groups, especially in children under-five and their mothers (Wiroto, 1996; Bau and Wasito, 1998; Wiroto and Schug, 2000). These evidences suggest only, that improvement in nutritional status requires a multi-sectoral approach, which consists of improving the income level of the poor in order to have better access to food and health services as well as other nutritional interventions such as nutrition education, management of child illness

through “posyandu” (integrated health posts), food supplementation, immunization program and so forth.

Evidences at macro level from other studies have indicated, that poverty and inequality are associated with malnutrition and ill-health (Gaiha, 1997; Bloom and Lucas, 1997; Babu and Reidhead, 2000). Whether reductions in poverty and income inequality have any association with declining percentage of malnutrition and ill-health, has not been very clearly defined at the macro or country level, especially in Indonesia. There have been many ecological or country level studies investigating the effect of poverty and unequal income distribution on nutritional and health status of the population, especially on mortality and morbidity (Fiscella and Franks, 1997; Kennedy et al, 1998; Wolfson et al, 1999; Ross et al, 2000). But, only few, that examined this relationship in Indonesia's case, especially on nutritional status of children under-five and elderly. The majority of these ecological studies in Indonesia focus on poverty and income distribution aspects. These types of studies were also supported by the data provided by the national level socio-economic surveys conducted by Central Bureau of Statistics (CBS) and the emerging need to investigate the effect of poverty, which rose due to the economic crisis, that began in mid 1997 (Irawan and Suhaimi, 1999; Suryahadi et al, 1999; Suryahadi et al, 2000) .

In this research, the nutritional status of vulnerable groups of children under-five and elderly was chosen to be investigated, because of their nutritional status were more sensitive to changes due to the influence of determinant factors compared to any other demographic groups. The biological nature of their higher nutrition needs made them more susceptible to changes when there is a lower intake of food or with the frequent presence of diseases (WHO, 1995). This research will focus on the effect of poverty and income distribution to the nutritional and health status of children under-five and elderly.

Whether poverty and/or income inequality are associated with lower nutritional and health status of children under-five and elderly in the setting of Indonesia at the country level is the main research question to be answered in this thesis.

1.2. Issues on Poverty, Income Distribution and Nutrition

The issues surrounding poverty and nutrition focus on whether there is any significant difference between the nutritional status of the poor and non-poor. As it was mentioned before, it is easy to distinguish the poor and non-poor when relative deprivation is present. But, when it is not, then the task of determining the poor becomes more complicated. Evidences from previous findings indicated that the same data sets would produce different poverty levels, because of the different approaches or methods in determining the poor was applied, with each pointing out the weaknesses of the others (Irawan and Suhaimi, 1998; Sutanto et al, 1999; Suryahadi et al, 2000; Dhanani and Islam, 2002). There are many consensuses in the steps of building the poverty profiles, yet disagreements were profound in every steps of the process. The choice of income indicators (income or consumption expenditure), the components of income (what to include and exclude), the selection of deflator when comparing relative poverty (the usage of the official CPI or to create your own CPI based on the data sets), the type of poverty line (Food Energy Intake or Costs of Bundle of Needs), the cut-off points of poverty line (based on minimum calorie intake or percentage of the median income), the application of poverty measures and whether to combine quantitative and qualitative poverty indicators (Ravallion, 1992; 1996;1997; Foster, 1998; Irawan and Suhaimi, 1998; Skouffias et al, 1999; Dhanani and Islam, 2002; White, 2002).