Body height of an individual is often regarded as something important, especially concerning the cause of the final body height of an individual. Is it the nutritional status or the genetic endowment that affects more of the growth of the body? The samples of this research were from Indonesia and Africa. The Indonesian Javanese sample was from mid- to high socio-economic status (SES) in Malang City. The African Cape Coloured sample was from two SES groups: mid- to high SES, and low SES. The variables were body height, weight, and lower limb length. ANOVA and Bonferroni correction were used to find any significant differences between the samples. The results showed that significant differences between the Javanese and Cape Coloured samples were caused by earlier biological maturation of the Javanese compared to those of Cape Coloured. This was indicated by the earlier peak of growth spurt in the male and female Javanese samples, compared to those of male and female Cape Coloured samples. Significant differences between high- and low SES Cape Coloured more often were caused by catch up growth that was experienced by the low SES Cape Coloured. The significant difference in anthropometric measurements that was caused by the difference status of SES—high SES anthropometric increment was significantly greater than those of low SES—was found only in the lower limb length of males, age 6-9 years. This reinforces the suggestion that during adolescence, genetic factor is more influential than the environmental factor in affecting the pattern of growth. From the results of this study it can also be concluded that males are more susceptible than the females in adapting to adverse environment.