The Government of Kenya has identified cotton as a key sub-sector in the Vision 2030 which is a vehicle for accelerating transformation of the country into a rapidly industrialising middle income nation by the year 2030. The sector has potential to benefit 8 million people in production, ginning, marketing and other activities along the value chain. Since the crop thrives well in dry areas of the country with limited alternative opportunities for development, it is being promoted in Kenya on poverty-reduction grounds and to spur economic development in these areas. The country has potential of producing 300,000 bales of lint while the local demand is 200,000 bales per year to meet the annual local fabric demand of over 225 million square meters. In the past, lint production has stagnated at 20,000 bales, produced from 30,000 hectares under rain fed cotton production with production ranging from 400 to 600kg of seed cotton per hectare. Over ninety percent of this production is realised from small scale producers who own less than two hectares of land. Data on the adoption of cotton varieties and inorganic fertilisers were collected through a national survey of cotton farmers carried out between March and November 2012. A three stage clustered, randomised procedure was used to select a representative sample of 500 farmers located in 50 villages throughout the country. The results from this survey suggest that gender-linked differences in the adoption of modern cotton varieties and inorganic fertilisers result from gender-linked differences in access to complementary inputs. This study further proposes the enactment of a policy that will ensure better access of complementary inputs to women especially extension services, land and labour.