Technology Fact Sheet for Adaptation
DROUGHT TOLERANT SORGHUM [i]

2. DROUGHT TOLERANT SORGHUM	
Introduction	Due to global warming and climate change, the country has been faced with drought hence there has been a shift focus from crops like maize, beans to drought tolerant plants and crops especially in areas where rains are not sufficient. Sorghum is grown in areas with as little as 250mm of rainfall. The drought tolerant sorghum varieties such as Serena, Seredo super sorghum are produced as a result of plant breeding to enhance their resistance or tolerance to stresses that result from climate variability. Drought is a major constraint to rain- fed crop production. Yield losses vary according to severity and type of drought. Prolonged drought at any stage will result into crop failures. To minimize the impact of drought, technologies have been developed by KARI and other Research Institutions to increase chances of successful harvests.
Technology Characteristics	Introduction of drought tolerant sorghum. The capacity of increasing agro – ecosystem to respond to climatic stresses. The technology reduces the risk of total crop failure and provides the producers with chances of dealing with the uncertainty created by climate change because they require relatively little rainfall. The sorghum are less affected by crop pests compared to maize.
Country Specific Applicability	Sorghum crops grow well in semi – arid and arid areas which occupy the great geographical area of Kenya. The ASALs occupy about 80% of Kenya's land mass. Hence the crop is very much applicable to dry areas of the country such as parts of Eastern Province, parts of Rift Valley, parts of Nyanza and Western.
Status of the Technology in the Country	The technology has been developed and adopted by farmers in the country. However, the adoption studies have been on and are still on-going. Farmers are already using the drought tolerant varieties in drought prone areas to improve sorghum production under drought conditions. Extension agents and NGOs are promoting drought tolerant sorghum for food security and beer brewing.
Benefits to Economic/Social and Environmental Development	The sorghum flour can replace maize flour in making ugali. They have high nutritional value because when processed and packaged, they do not loose their nutrients very fast. Trials are on for forage sorghum variety that is capable of multiple cutting for over 3 yeas. Sorghum is Africa's oldest food crop. It is full of energy – giving nutrients. The direct and indirect benefits of drought tolerant sorghum Includes the following: water use efficiency improved; expands arable land; reduce soil erosion, improvement of soil fertility and improvement in food security.

Climate Change Adaptation Benefits	Sorghum requires relatively little rainfall. Sorghum is not affected by pests as much as other cereals such as maize. Sorghum grows well in arid and semi arid areas. Sorghum is not only drought tolerant but it is also adaptable to most of Kenya's climatic zones and soils.
Financial Requirements and Costs	US $ 115. The costs relate to the adoption of the drought tolerant seeds by farmers but does not include the research and development of the drought tolerant sorghum variety by KARI which is estimated to cost about Kshs 3 million over a period of 7 years or so.

[i] **This fact sheet has been extracted from TNA Report – Technology Needs Assessment Reports For Climate Change Adaptation – Kenya. You can access the complete report from the TNA project website http://tech-action.org/**