



## Feed the Future Country Fact Sheet

Online Version: <https://www.feedthefuture.gov/article/private-sector-partners-bring-innovative-edge-heat-tolerant-maize-research-asia>

## Private Sector Partners Bring an Innovative Edge to Heat Tolerant Maize Research in Asia



CIMMYT-India

Heat-resilient hybrid varieties of maize (right) are better able to survive rising temperatures that can seriously damage traditional varieties (left).

Climate model studies show South Asia is heating up, with often devastating consequences for smallholder farmers. Sharp increases in temperatures adversely affect maize production in tropical regions, so varieties that will thrive despite water deficits and soaring temperatures play an important role in adapting agriculture to a changing climate.

That's why Feed the Future supports the Heat Tolerant Maize for Asia (HTMA) project, a public-private alliance that targets poor farmers in South Asia whose crops are vulnerable to weather extremes and climate change. By developing and deploying heat-resilient, hybrid (i.e. produced by cross-pollinated plants) varieties of maize, the project gives these farmers a chance to thrive in the face of increasingly volatile weather conditions.

One of the project's strategies for increasing the scale of heat-resilient maize varieties is to link up with companies that are already established among farming communities and local markets, including DuPont Pioneer, Kaveri Seeds and Ajeet Seeds. These private sector partners give HTMA greater access to regional marketing networks, vastly increasing the project's reach and impact.

Companies who participate in the HTMA project contribute expertise in product evaluation and marketing as well as both in-kind and cash resources. For example, DuPont Pioneer has committed to generating 1,000 improved genetic lines per year as part of the project in order to accelerate the pace of heat-tolerant maize development. As a result of this collaborative research and investment, one new set of elite, stress-resilient hybrid varieties is rolled out every two years and becomes available for large-scale adaptive trials followed by broad dissemination. Companies find this approach very attractive because they have access to unique heat-resilient hybrids that are rarely available to their competitors.

In consultation with all project partners, HTMA devised a well-defined product allotment and licensing policy. According to the policy, partners are allotted exclusive rights to specific, marketable hybrid seed varieties, while the source lines remain international public goods that can continue to be used for future research. Partners are also encouraged to use early generation lines from which proprietary lines could be developed. Thus, HTMA is leveraging pre-commercial products for marketing and helping partners strengthen their germplasm base, which will enable continued development and delivery of stress-resilient products after the project concludes.

The new varieties that have resulted from the Heat Tolerant Maize for Asia project show great promise to be taken to scale and deployed in tropical climates beyond South Asia.