Agricultural scientists need to convey their research results to farmers, though they are unfortunately not always well equipped to do so. Academic training can encourage scientists to focus on minute technical details that are not necessarily relevant to farmers, who are interested in the practicalities of growing crops. On the other hand, the farmers have information and experience that could make the scientist’s innovations easier to use, but few farmers can easily access researchers.

Farmers and scientists can bridge this gap by working together to produce videos that tell stories of relevance to farmers while presenting research results. Television and video can also reach large audiences quickly.

Between 2012 and 2014, CIMMYT and the NGO Agricultural Advisory Society, partnered to show videos on using small agricultural machinery for planting rice, wheat, maize, and legumes. The videos were shot in documentary format, and included narrative punctuated by farmer interviews.

They were designed to raise awareness about the machinery, with specific attention on how planting by machine can reduce costs while increasing productivity. The level of technical detail was general, serving to introduce the topic, but without explaining how to operate the machinery. Working together, videos were screened at village roadsides, tea stalls, and community centres. We were successful at reaching farmers at scale, with over 86,000 farmers watching the videos during a 4-month preliminary campaign.

In follow up sessions we asked farmers how the videos could be made more effective. They requested more technical detail so that they could study the videos themselves and learn how to operate the machines without additional training. They added that the videos should be more entertaining and enjoyable. Several farmers suggested that humorous or dramatic videos with technical content that mimicked South Asian television shows could be effective.

Combining fictional stories and training messages in videos, however, called for a rethink of how we approached film development. Rather than interview farmers and weave their comments into a narrative, we now had to develop creative scripts from scratch, while assuring the right level of scientific detail. Considering that researchers are not trained to be the best storytellers, this was no simple task.

So we collaborated with Mati-o-Manush, a popular, agriculturally oriented television programme, and worked alongside farmers, some of whom later performed as actors in the videos. After meetings with farmers who used the machinery, we developed stories and scripts that we verbally pre-tested,
critiqued, and rewrote with help from the same farmer groups. We aimed to develop scripts that balanced storytelling with relevant technical information. After shooting, videos were screened to audiences of scientists and farmers, and again revised.

The result has been five new videos on planting, irrigation, and harvesting equipment, each filmed in comic-drama format, using both professional and farmer actors. Take for example the video on using mechanical bed planters to sow crops on long beds that alternate with furrows for channelling irrigation water.

In this story, Halim is a handsome single man looking to marry. He is also a bed planter owner who uses the machine to sell land preparation and planting services to other farmers. One day, while driving the bed planter to a field, he happens upon a respected older villager named Balu, who is intrigued by the machine, and decides to try it out by hiring Halim to sow his field.

During planting, Halim takes time to show each component of the machine to Balu, explaining how to operate and calibrate the bed planter to apply the right rate of seed and fertiliser, and how to irrigate by furrow. Balu’s curiosity leads him to ask more questions, and Halim eventually details the business model he uses to attract farmers to earn income. Balu is impressed, but Halim’s motivations are not entirely business oriented – as he is interested in marrying Balu’s daughter, Tarana. By earning Balu’s respect and demonstrating that he is a competent farmer and businessman, he earns Tarana’s hand in marriage.
In another video, we tackle how important it is to harvest rice quickly so that the subsequent wheat crop can be planted on time to achieve higher yields. Farmers however face difficulty in timely harvesting because of the heavy labour burden of hand cutting their fields, not to mention the hard work. We therefore developed a story about Kashem. His wife Mina finds him relaxing at home, rather than harvesting rice. She is worried they won’t be able to plant wheat on time.

Kashem also can’t afford to pay others to harvest his rice, but he has just enough cash to hire Jamal Mia to use his mechanical rice reaper to rapidly harvest his crop. During a work break under the shade of a tree, Jamal Mia describes how to turn it on and operate the reaper, before explaining how reaping is fast and inexpensive compared to the drudgery of hand harvesting.

In this way, Jamal Mia has no problem harvesting his own field, and also finding farmer-clients willing to pay him to reap theirs too. In the end of the video, Kashem manages not only to harvest rice and then plant wheat on time, but also decides to save up to purchase a reaper and go into business, much to the approval of his wife.

So far, farmers like the videos. They tend to be more engaged in the film screenings, with audiences laughing at the subtle cultural jokes built into the scripts. We’ve also noticed that farmers ask fewer questions about how the machinery works; rather, they ask where they can buy or access equipment for use in their own fields. Mohammad Rafiqul, a farmer who saw the videos, commented, “I was inspired and bought the machine, though at first my family was against the investment.”

Television stations were also more interested in the videos, reasoning that even training videos must compete with popular Bollywood movies or television soap operas. Companies selling machines also saw their value. One firm, Metal Limited, used the films for marketing campaigns aired on local cable TV channels during Eid holidays, with an estimated viewership of about 75,000 people in just 11 days.

Use of dramatic-comic formats, however, is not without drawbacks. Videos produced this way tend to be regionally or nationally relevant, as they are purposely formatted to appeal to farmers’ specific cultural and entertainment interests. They may therefore be more difficult to transfer and use in different countries or cultural contexts, even after translation and dubbing, which is also more difficult with drama than with documentaries, and will limit how many language versions the video can have.

As such, projects aiming to scale-out research recommendations through training videos should carefully assess what format is most relevant for the types of farmers they are working to affect. Within Bangladesh, however, dramatic and humorous farmer-training videos are no laughing matter. When carefully developed with appropriate input, testing, and revision with farmers, they can deliver both entertainment and core training messages appropriately, much to farmers’ amusement.