**CONCLUSION**

A few implementation challenges need to be solved when PECAD gets deployed by non-profit agencies working with indebted farmers. First, PECAD’s predictive performance can potentially be improved by incorporating historical weather patterns, which can play a role in determining future crop supply (and hence, the future crop price). However, deep learning methods are rarely used to model weather in the real-world, as physical models are far more accurate at predicting future weather. Thus, PECAD needs to be integrated with physical weather prediction models (as part of future work). Further, sophisticated deep learning approaches to predicting future produce prices (such as PECAD) may raise suspicions among low-literate farmers. Public awareness campaigns in the agencies working with this program would help overcome such fears and to encourage participation. Also, non-profit agencies often do not prioritize spending their limited resources to buy sophisticated computer hardware (to train and run PECAD). Thus, we propose deploying PECAD as a stand-alone web service that the agencies could use without our intervention. Finally, PECAD represents a single piece of the puzzle that needs to be solved for preventing farmer suicides, there are many other pieces. For example, PECAD’s successful deployment depends crucially on availability of long-term crop pricing and volume patterns. While Agmarknet.gov.in makes this information available for Indian markets, there are no analogous data repositories for other developing countries. This paper presents PECAD, a deep learning algorithm for accurate prediction of future produce prices based on past pricing and volume patterns. Previous ML algorithms for predicting produce prices do not explicitly consider the spatio-temporal dependence of future prices on past data, which leads to significant shortcomings. PECAD handles these issues by proposing a novel wide and deep learning architecture in which two separate convolutional neural network models are trained for pricing and volume data respectively (for the crop under consideration). Our simulation results show that PECAD outperforms existing state-of-the art baseline methods by achieving 25% lesser coefficient of variation. Our work is done in collaboration with an Indian non-profit agency in the Indian state of Jharkhand that works on preventing farmer suicides, and PECAD is currently be ing reviewed by them for potential deployment.