

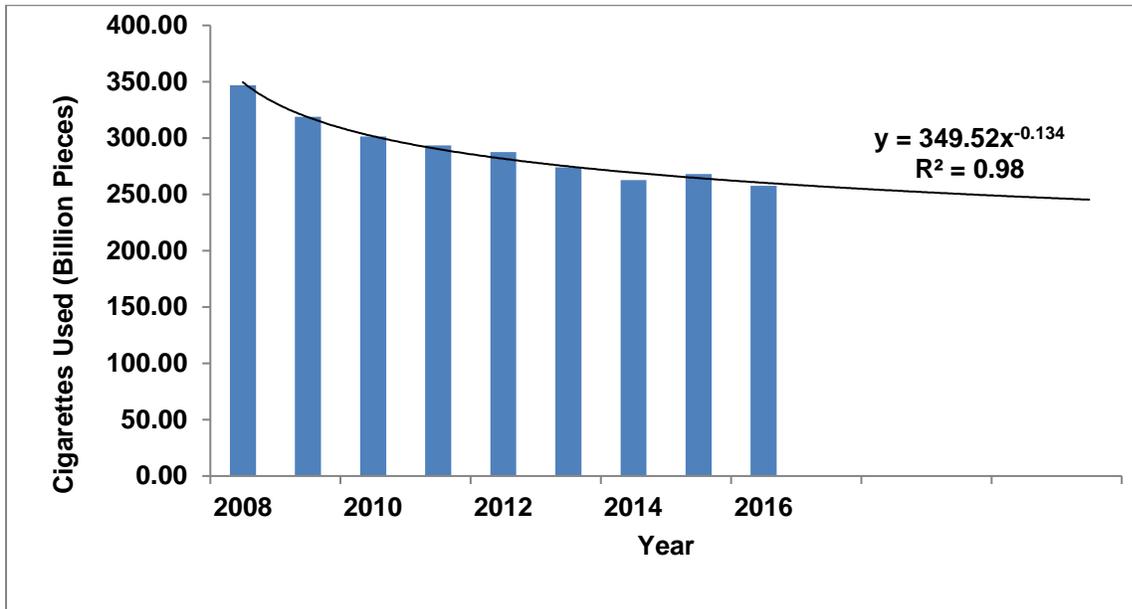
APPENDIX 3

Projected Use of Cigarettes and RYO in the U.S. in the First and Fifth Year of Marketing the New Products

To evaluate the environmental impact of the proposed actions due to use of the new products, historical data regarding total use of cigarettes and RYO from 2008 to 2016 was employed to mathematically estimate the forecast of the total amount of cigarettes used in the U.S.⁷ This was achieved by using the one best-fit trend line with R² value above 0.9.

Projected Use of Cigarettes in the U.S.:

Using the best-fit power trend line with the R² value of 0.98, the forecasted number of cigarettes that will be used in the U.S. is estimated to be 256.73 billion (230,575 metric tons) in 2017 and 245.41 billion (220,410 metric tons) in 2021.⁸



⁷ Forecast trend lines extrapolated from TTB data. Available from <http://www.ttb.gov/tobacco/tobacco-stats.shtml>. Accessed March 15, 2017.

⁸ Billion cigarette equivalent value is calculated based on the assumption that approximately 0.9 grams of tobacco is used per cigarette [1]. Billion cigarette equivalent = $\frac{(X \text{ million pounds tobacco} \times 10^6) \times (\frac{453.59 \text{ g}}{0.9 \text{ g}})}{10^9}$