**Notes on Tuungane Replication**

**See “20180702\_Replication.html”**

**NEW/UPDATED RESULTS**

**2.1. Sample sizes**

**2.2. Ex-post power analysis**

ADDED “Output/Fig\_MDE.pdf”

NOTE: The process of generating the estimations is not straight forward and I describe it in more detail the main replication “20180702\_Replication.html” file under “Minimal Detectable Effects”. It draws from I think a fairly sophisticated approach we used in Metaketa I. Let me know whether a) the data generating process is intuitive for both outcomes, and b) the explanation is sufficiently clear.

**2.3. Improvement and comments on Figure 1**

ADDED “Output/Fig\_Tuungane\_chefferies.pdf”

**2.4. Balance table – Tuungane**

ADDED

* Mineral composition (chief survey, CQ 20) as sum of presence of each mineral (measure 0-12). “Not applicable” coded as 0.
* Baseline infrastructure (Chief survey CQ 24-27 from A1 to D1) – Already in the table
* How did the previous chief come to power? (CQ 48 – dummy for popular enthronement options 4 and 5)

SUGGESTED EDITS FOR **APPENDIX D BALANCE**

*We analyze the following variables at the village level: distance (in hours) to the chiefdom capital, presence of minerals (ranging from 0 to 12 indicating number of minerals present in the village), presence of infrastructure (specifically: wells, schools, clinics, churches and meeting halls) in 2006, whether previous chief was enthroned by popular choice (dummy variable for whether selected via election or plebiscite), and in-migration in 2006 (IDPs, returned-IDPs, refugees and repatriated refugees). At the individual level we analyze the respondents' age. Sample sizes vary slightly due to missingness in the data.*

**2.5 Balance table for RAPID**

ADDED "Output/Table\_Balance\_RAPID.tex"

**NOTES TO REVIEW (these are not exhaustive --- combing through code):**

Table 10 Robustness checks column 3 is supposed to aggregate weighting by individual sample means, but the village-level averaging function doesn’t do that (see below). Flagging before editing.

if(.village\_level & is.null(.within\_village\_interaction)) .data <-aggregate(.data, by=list(.data$IDV), FUN="mean", na.rm=TRUE)

**Table 3: Main Analysis**

Embezzlement direct, embezzlement list experiment, and inequality of benefits using both IPW and sampling weights, not only IPW.

**Table 5: Balance**

The means are weighted by PROPENSITY\_WEIGHT\_ADJ[[1]](#footnote-1) rather than simple IPW.

**Table 5: Balance (RAPID)**

Same as Table 4 except it uses propensity as 1/Ncontrol and 1/Ntreatment for each cluster.

**Tables 7 and 8: Spillovers**

Typo revision resulted in analysis for 5km (20km) retaining only (). Estimates for direct and indirect effects change but interpretation doesn’t change.

indirect = function(d = 5, adjac = adj, treated = gps$TUUNGANE, binary = TRUE){

close <- (adjac <= d) & !same\_cdc

out <- treated %\*% close

if(binary) out <- 1\*(out > 0) #REVIEWED OLD: 1\*(out > 1)

return(as.numeric(out))

}

Table 10: Robustness

CODING Flags (still making sense of this):

Inequality of benefits

qr003\_bis\_value -8 and -9 coded as 0

> table(ABD\_INDIV\_BEN$qr003\_bis\_value>0)

FALSE TRUE

3254 466

1. “Propensity adjusts for the fact that a small fraction of control units were randomly dropped from analysis to meet the 560 goal. For example, if a bin had 7 units of which 3 were randomly assigned to treatment and 4 to control then (randomly) one of the controls might not have been followed for analysis. The probability of assignment to treatment is 3/7. The probability of assignment to control for these units is 4/7. The probability of being assigned to control and then appearing in the data is 4/7\*3/4=3/7, which is identical to the probability of assignment to treatment.” [↑](#footnote-ref-1)