

# Analysis of IPC thresholds at a national level

This notebook examines the conditions under which the trigger mechanism threshold of 20% of the population or more in or above IPC Phase 3 was reached in Somalia.

## Data

Below is a sample of the imported data table, converted from the IPC Population Figures Tracking Sheet.

	country	pop	rev_pop	period	IPC3- pop	IPC4- pop	IPC5- pop	P-st- period	P- end- period	P-IPC f
211	Somalia	15443000.0	12327529.0	2019-08-01 00:00:00	982000	215000	0	2019-10-01	2019-12-01	16550
212	Somalia	15443000.0	12327530.0	2019-01-01 00:00:00	1045000	92000	0	2019-02-01	2019-06-01	14160
213	Somalia	13908000.0	12327530.0	2018-07-01 00:00:00	1636262	115453	17131	2018-08-01	2018-12-01	13880
214	Somalia	13908000.0	12327529.0	2018-01-01 00:00:00	1466000	180000	0	2018-02-01	2018-06-01	22320
215	Somalia	13908000.0	12327529.0	2017-07-01 00:00:00	2444000	866000	0	2017-08-01	2017-12-01	23410

## Thresholds

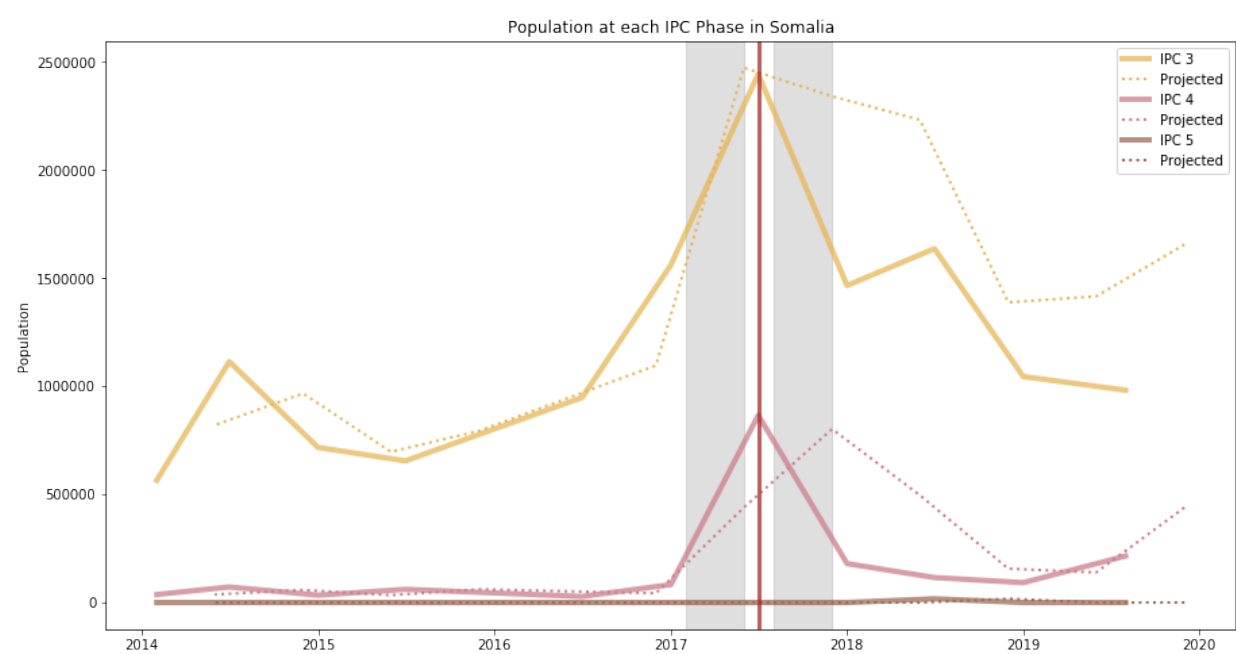
According to the actual data collected, the threshold was reached in August 2017. However, the thresholds were triggered by projections for two periods - February 2017 to June 2017 and August 2017 to December 2017.

```
Actual threshold reached
215    2017-08-01
Name: date, dtype: datetime64[ns]
```

Projected threshold reached		
	P-st-period	P-end-period
215	2017-08-01	2017-12-01
216	2017-02-01	2017-06-01

## Timeseries

The plot below shows the actual and projected IPC phases in Somalia from 2014 to the end of 2019, along with the periods during which the advance funding mechanism would have been triggered. The projected thresholds are shown in grey, and actual threshold is shown in red.



## Next steps

1. Can the accuracy of the projections be improved by using external indicators, such as World Food Prices or WSRI?
2. How often were the thresholds predicted at a sub-national level?