

**IMPACT OF SECURITY CHALLENGE
ON ARTISANAL FISHERIES AND
WATER BODIES IN BORNO-STATE,
NIGERIA**

BY

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INTRODUCTION

- In Nigeria, Fish is one of the most traded commodities due to their increasing demand for fish with their dietary preference.
- Available information indicate that major inland waters fisheries have been over exploited and the security challenge has reduced the numbers of fish landing and fish products in the Northern area especially in Maiduguri, Borno State.

INTRODUCTION CONTD

- The Nigeria insecurity situation has affected fisheries trading in Borno-State from the period of violence eruption in 2009;
- It is generally known that it is very difficult for fisheries business to survive if there is no peace and security.
- Fishing activities are pronounced within the Chad basin and fishing is done on a full time basis by indigent and migrant fishermen within River Ngadda as well as upstream and down stream of the Lake Alau reservoir.

AIMS AND OBJECTIVES

- The aim and objectives of this study is to examine the influence of insecurity for 6 years on the fisheries of Borno state.
- To examine the effect of the insecurity on the socio-economic activities of the fishermen and women present within some fishing villages in Maiduguri and determine the impact on Fisheries and its product.
- And to suggest solutions to curb the excessive drifting and collapse of fisheries in Borno-State.

MATERIALS AND METHODS

- The study was carried out in Maiduguri Northeastern part of Borno state which lies between latitudes $11^{\circ} 42' \text{N}$ & $11^{\circ} 43' \text{N}$ and longitudes $13^{\circ} 15' \text{E}$ & $13^{\circ} 17' \text{E}$ (BSMLS, 2002)





0 100 200 mi
 0 150 300 km

NIGER

12°

8°

4°

NIGERIA

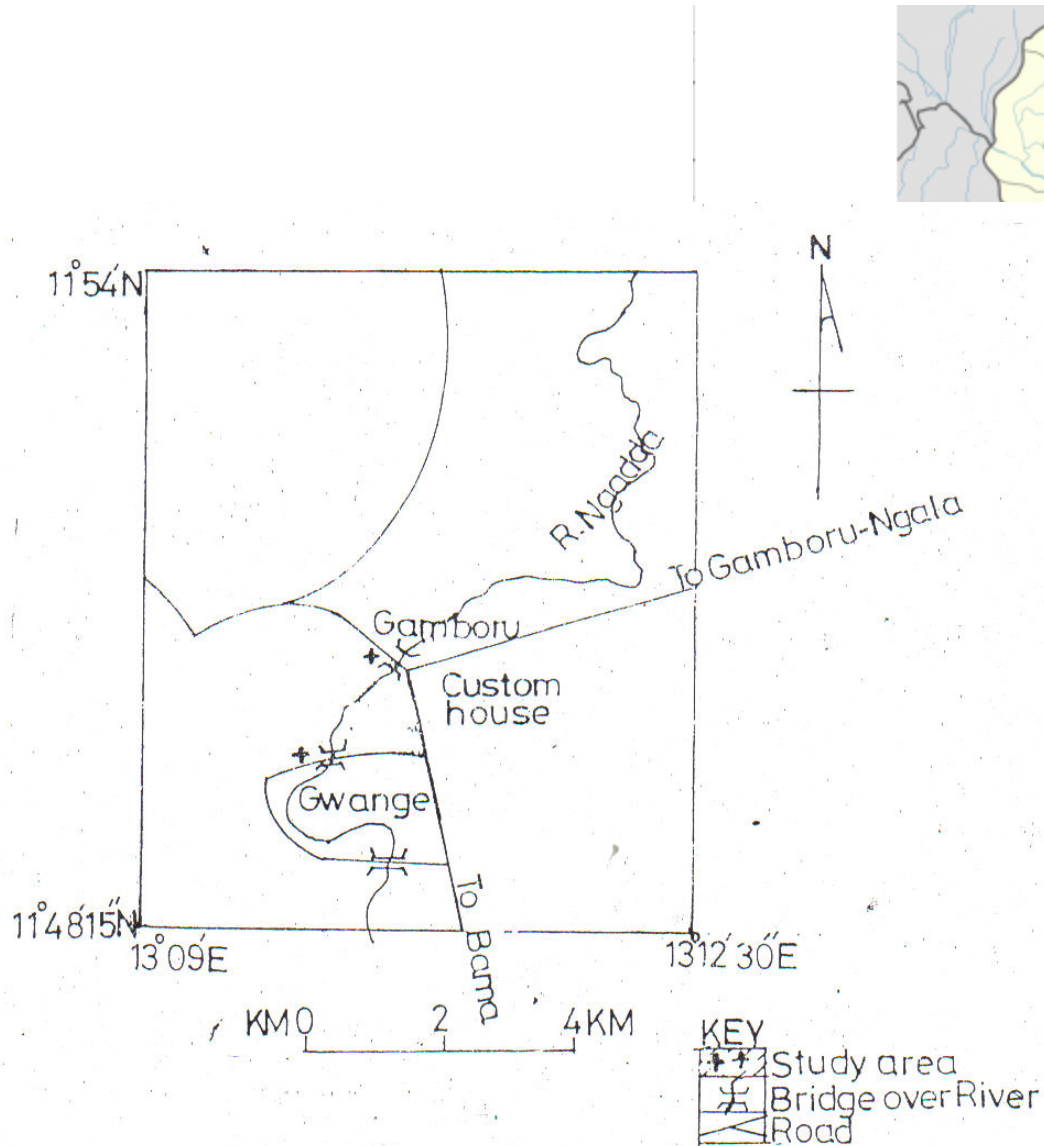
CAMEROON

CHAD

1. EKITI
2. ANAMBRA
3. ENUGU
4. EBONYI
5. IMO
6. ABIA
7. RIVERS
8. FEDERAL CAPITAL TERRITORY

ATLANTIC OCEAN

MAP OF THE STUDY AREA



Materials and Methods contd

- Six locations for fish landing and fish markets were randomly chosen to examine the number of fishermen and evaluate their activities between 2012 and 2017.
- The Locations are as follows: Ngadda, Gamboru, Baga, Yerwa, Metropolitan, Bama road, and Damboa. These are the major areas where fishing activities flourish and boom over the last 3 Decades

METHODOLOGY

- Oral interviews were conducted and inventory of the fish species endemic to the area was taken from the fish sellers, and identified appropriately.
- Some of the people were interviewed and their response was dully recorded in every stations
The type of fish products were observed and examined.
- Visual estimates of the density of commercially important commercial fishes were made by a series of quadrat samples.

METHODOLOGY CONTD

- During quadrats sampling, the observer would look at the fishes and count the total number of fishes over an area without regards to fish family within 1msquare, a sampling period consisted of four counts systematically performed one every 1min(Idowu *et.al* 2004).

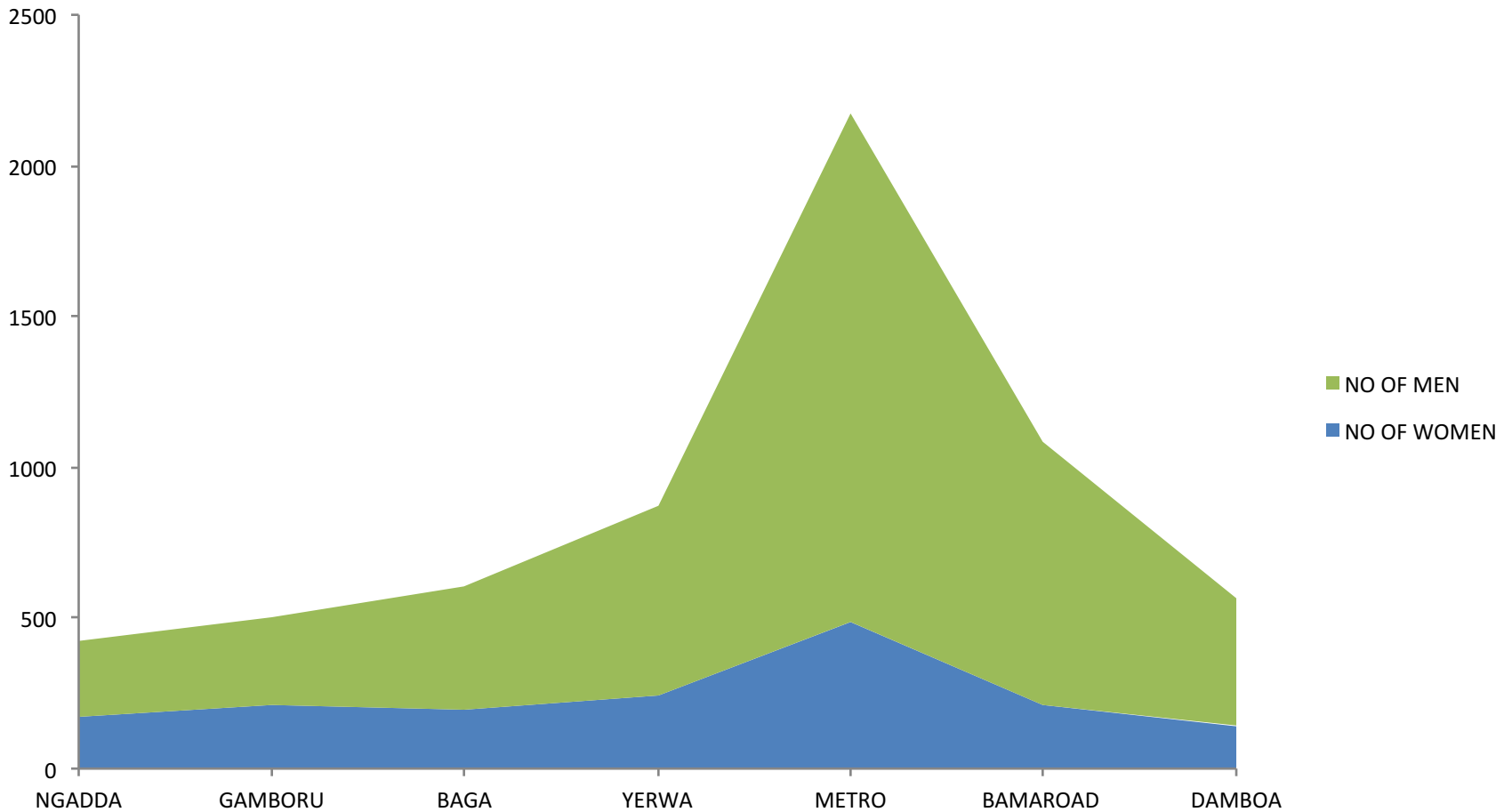
Statistical Analysis.

- The total number recorded for the artisanal fishermen and women were examined and subjected to statistical analysis for means and ANOVA for normality of data, for homogeneity and heterogeneity.

RESULTS

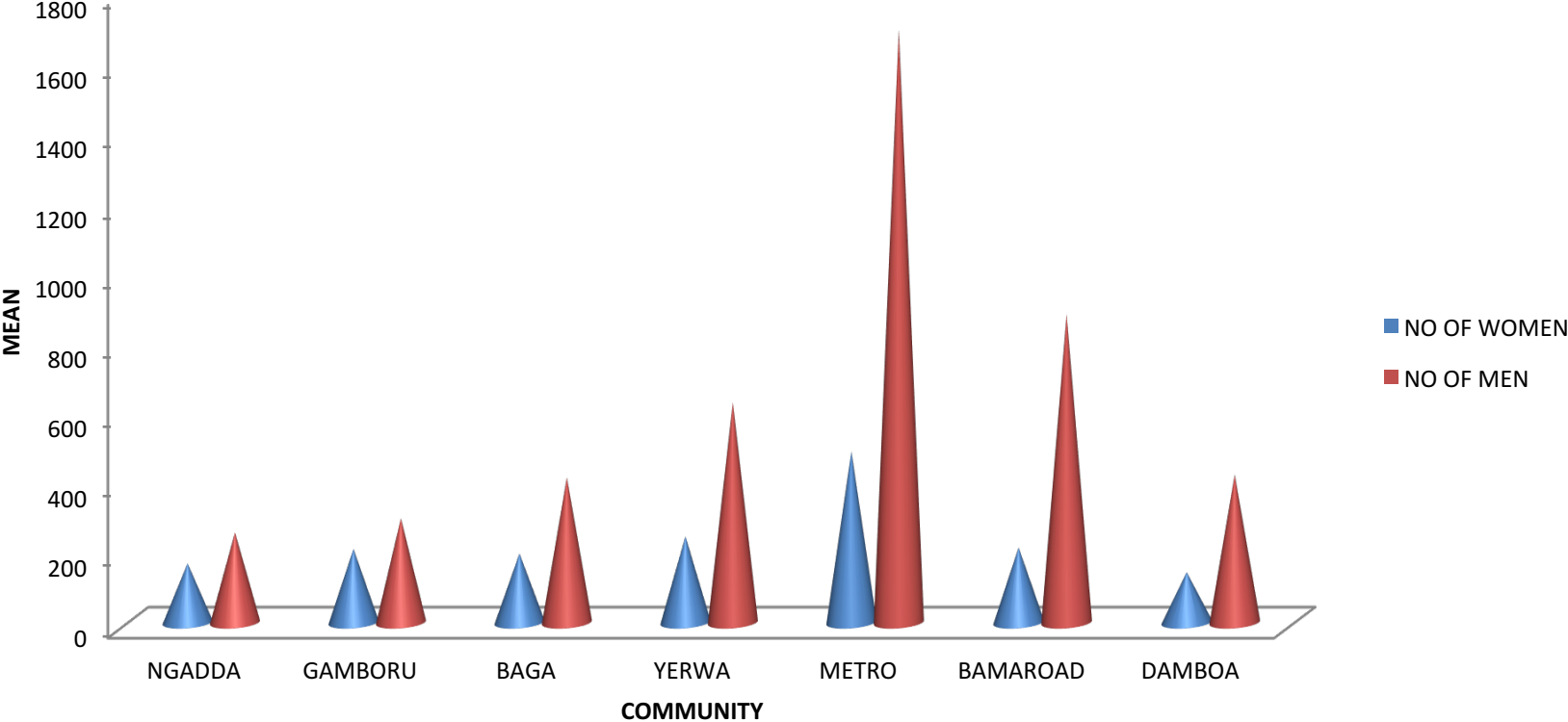
- From the interviews and discussions held with some fishermen , it was gathered that Borno-State is relatively rich in Fish both in Biomass and abundance, though the security situation has drastically affected the fish landing, Fish processing and the products through out the study period
- Statistically, significant difference $P < 0.05$ between the years of study were discovered in the case of number and activities of fishermen, Fish Taxa and density.

ARTISANAL FISHERIES ACTIVITIES IN 2012



- Fig 1 above shows the Number of Artisanal fishermen in 2012.
- The distribution and complexity of artisanal fishermen and their socioeconomic activities in Borno- State were controlled by insurgency and extremes of insecurity and terrorism.

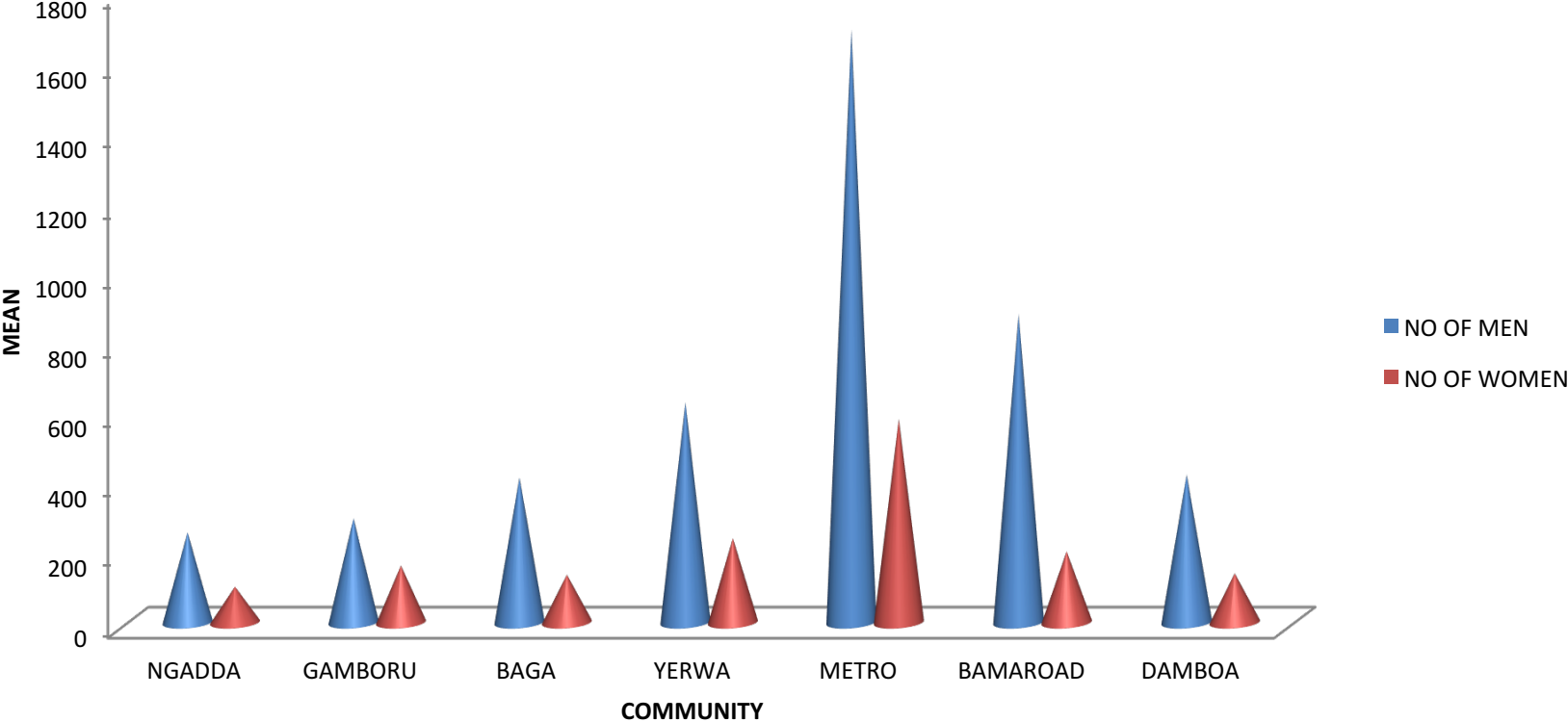
2013



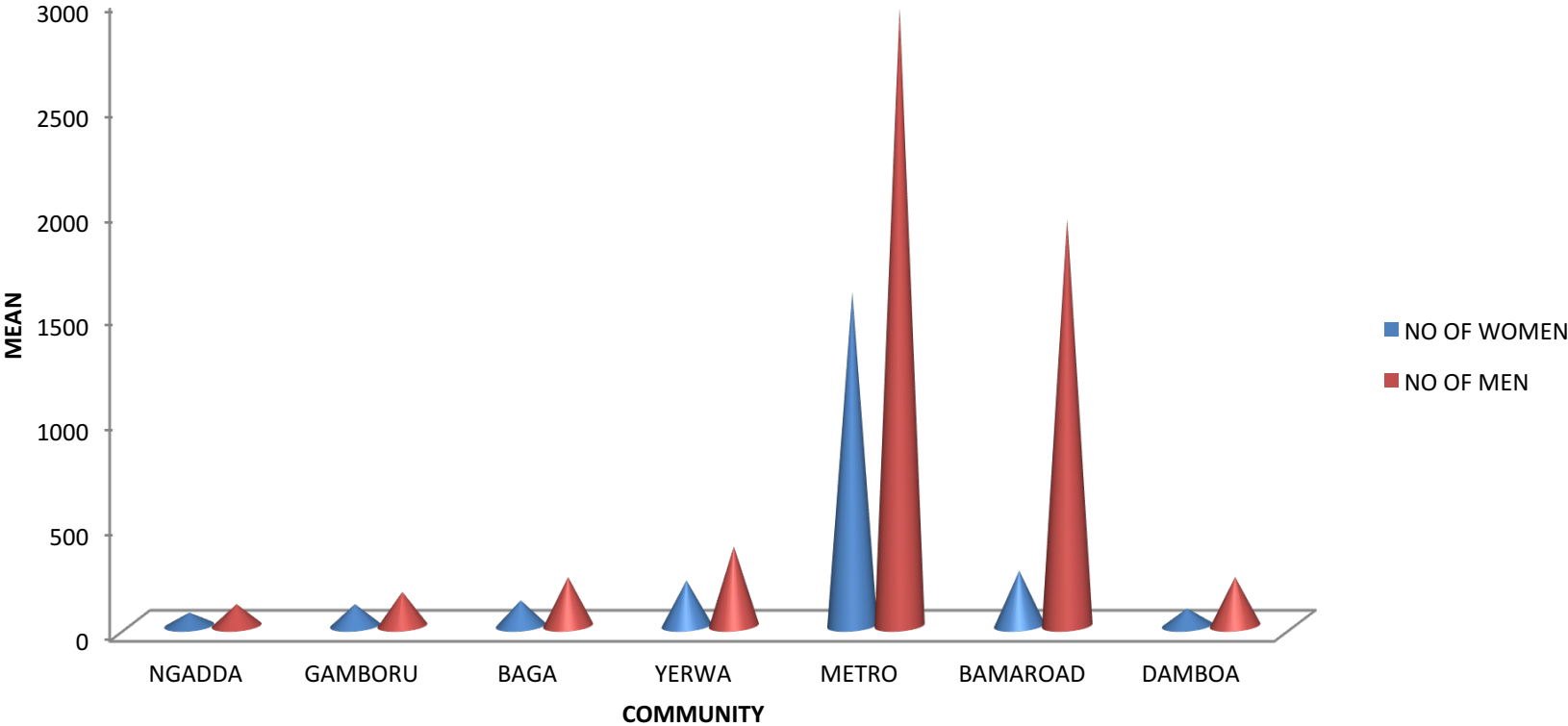
- Fig 2 shows reduction in the number of men and women in all locations in 2013.

- The numbers of fisher men in each location are significantly higher than the women, there were no significant differences between the numbers of women in Ngadda, Gamboru, Baga, Bama road and Damboa. But in the Metro, the means recorded was significantly higher than all other locations .There were more fishermen in Metro and Bama road compared with other locations. Numbers recorded in metro was significantly higher than all other locations, followed by Bama road.

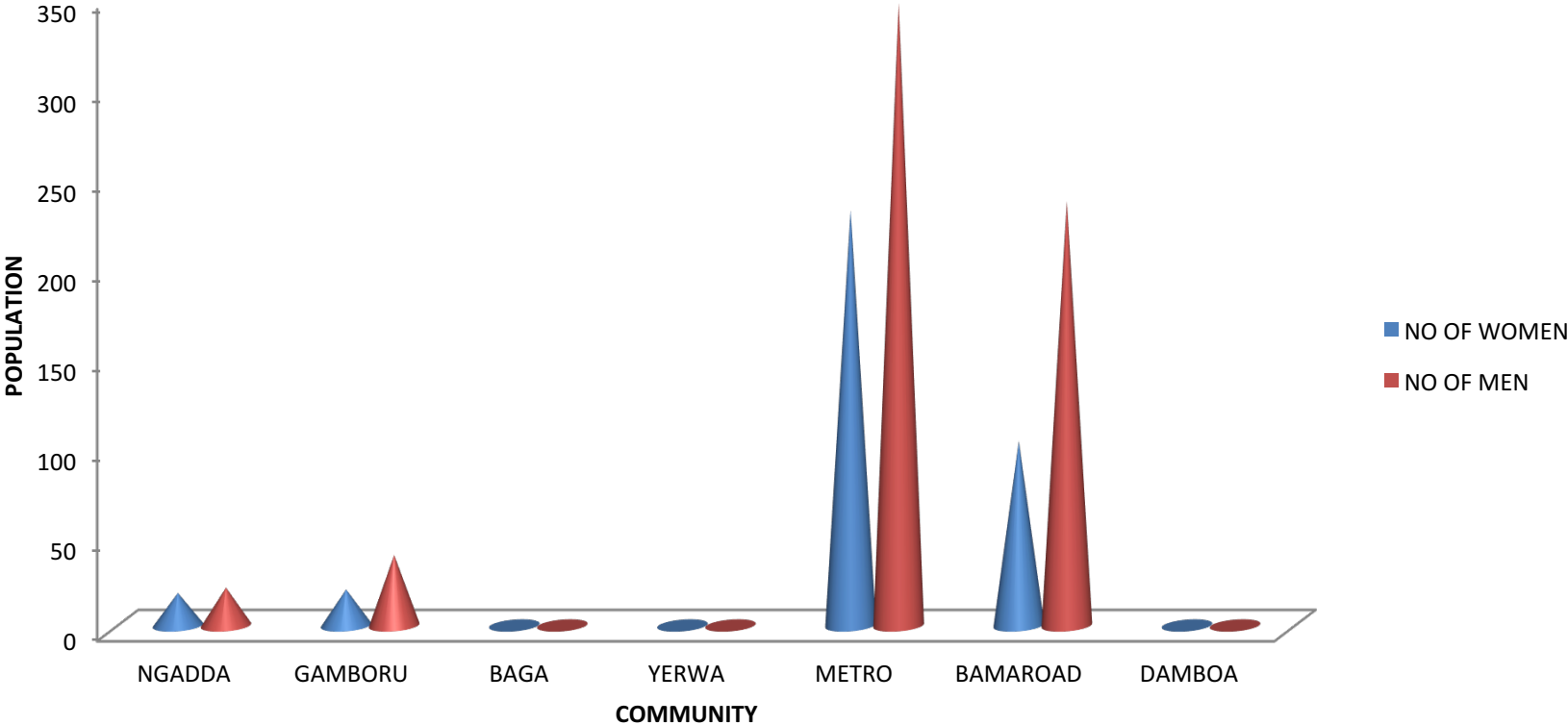
2014



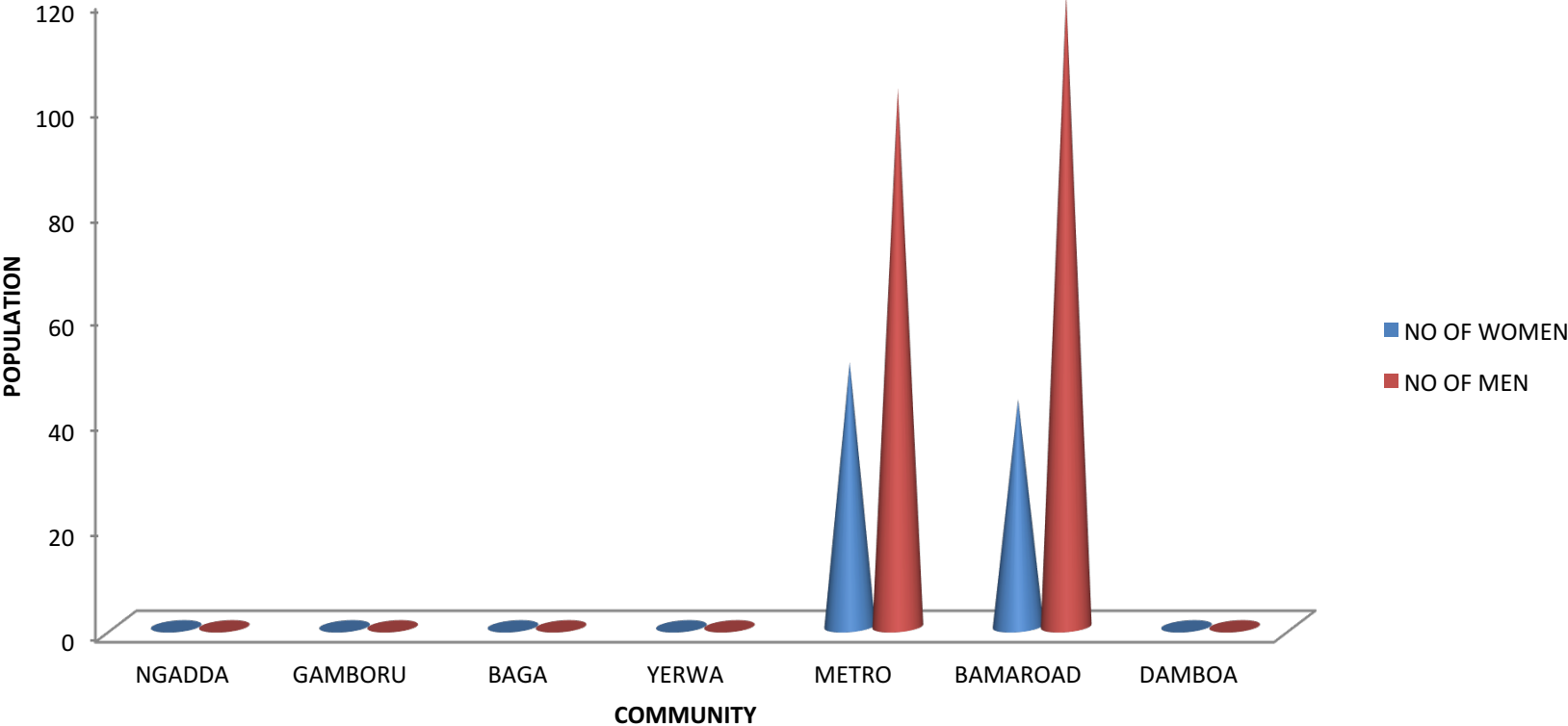
2015



2016



2017



- When the numbers of fishermen in each community were considered, Metro had the highest number which was significantly different $P < 0.05$ from all other communities. All other locations were completely overrun by insurgency.

- Influence of prolonged insurgency from year 2009 to 2017 was represented by various figures
- There are several reasons for a dramatic change in the abundance of artisanal fishermen for these years of insurgency.
- Insecurity is one of the significant problem being faced by these fishing communities.

- There was a general decline in fish abundance and artisanal through out the 6years . , they were highest and most abundant at the beginning of the insurgency in 2011 and 2012 However,.there was an overall decline in artisanal and fishery with a strong reduction of yearly pattern of total fish landing and artisanal activities,in 2015, 2016 with lowest in 2017, when the insurgency attacks became more pronounced and overwhelming.

FISH FAMILY DISTRIBUTION

- A total of 6 fish families were collected during the period of sampling with Clariidae 50% being the most abundant followed by Cichlidae with 27%.
- 10% Bagridae, 6% Momyridae, with 4% Malapteruridae The smallest of the groups being 3% Mochokidae in abundance composition.

CONCLUSION

- Nigeria in recent times has witnessed an unprecedented level of insecurity. This has made national security threat to be a major issue for the government.
- Despite Government efforts, the level of insecurity in the country is still high. Nigeria has consistently ranked low in the Global Peace Index (GPI, 2012),
- Signifying a worsened state of insecurity in the country. The insecurity environment in Borno state of Nigeria for fisheries business refers to insecurity variables that affect the performance of artisanal fisheries and fish products but over which the business enterprise has little or no direct control.

CONCLUSION

- The implications of the insecurity situation in Borno-State for artisanal business activities cannot be overemphasized.
- We conclude that when there is wide spread insecurity, it could affect business investment, the entire business organization or some aspects of its operations which include production, marketing, finance and human resource.

NGADDA WATER BODY



DAMBOA FISH LANDING SITE



BAMA LANDING SITE



METROPOLITAN FISHING SITE



BAGA FISHING SITE



YERWA FISHING ARENA



THANK YOU FOR LISTENING

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