

# Deworming Wish list - Bauchi State, Nigeria 2018 – 19, explanatory narrative

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# Background to project area and PCT NTD needs

Bauchi State is situated in North Eastern Nigeria. It was created in 1976 and has a land area of 49,259sq.km. The projected population for 2014 is 5,284,657 (2006 census). The population is predominantly young, with children and youth aged 0-19 making up to 55.4% of the total population. Around 84% of the population live in rural areas, while 16% reside in urban centres.

The State is bordered by Gombe and Yobe States to the East, Kano and Jigawa States to the North, Kaduna State to the West and Plateau and Taraba States to the South.

Bauchi State has twenty Local Governments Areas (LGAs). These include: Alkaleri, Bauchi, Bogoro, Dambam, Darazo, Dass, Gamawa, Giade, Ganjuwa, Jama'are, Itas -Gadau, Katagum, Kirfi, Misau, Ningi, Shira, Tafawa Balewa, Toro, Warji, and Zaki. Within the LGAs there are 323 wards, and many settlements under the wards.

The State is multi-ethnic and multi-religious and two predominant religions are Islam and Christianity. Prominent among the ethnic groups are: Hausa, Gerawa, Fulani, Jarawa, Sayawa, Kanuri, Bankalawa and others.

The NGO Mission to Save the Helpless' (MITOSATH) support for NTDs began in Bauchi state in 2014 with funding support received in 2014 from END7 a programme of the Global network for neglected Tropical Diseases.

The NTDs Programme in Nigeria is being implemented in Bauchi State in collaboration with the Federal Republic of Nigeria and MITOSATH. Currently, UNICEF are supporting training for Onchocerciasis / Lymphatic Filariasis (LF) in six LGAs in 2017.

#### **Endemicity of PCT NTDs and MDA needs**

Mapping of the prevalence of onchocerciais, LF, Soil Transmitted Helminths (STH), Schistosomiasis (Schisto) and Trachoma has been completed in all LGAs in partnership with MITOSATH and Sightsavers.



With mapping of these NTDs complete, there is a need to scale up support on treatment to full mass drug administration, in view of the 2020 National elimination plan. Mapping results from 201) showed prevalence ranging from 0.0- 33.9% for Schistosomiasis and 1.6 - 19.3% for STH (see Annex for LGA level prevalence data). According to WHO thresholds for MDA, Schistosomiasis MDA is required in 16 LGAs (5 low risk and 11 high risk), while MDA for STH is not required in any of the LGAs. There has been no MDA in the State for schistosomiasis except in 2014 in one LGA (Ningi LGA).

Bauchi State is onchocerciasis endemic in 12 LGAs and LF endemic in 11 LGAs with 10 LGAs co-endemic for onchocerciasis and LF. Oncho and LF MDA have been at scale geographically since 2004 and 2014 respectively.

Efforts have been made to secure funding for the state over the years, however funding for Bauchi state has not been secured for 2017 (except for the UNICEF support to train in 6 LGAs for MDA). Funding is yet to be secured for 2018-19.

Over the years when there was little or no funding, the State's coordination team used other means of collaborating with health projects in state to transport NTD drugs to the LGAs and health facilities. This included onwards distribution to communities without conducting key activities such as community mobilization, sensitization and trainings of health workers and volunteers. This approach is not effective and treatment data and coverage is poor. Bauchi is one of the states included in the Trust support proposal for Trachoma elimination in Nigeria.

## Bauchi State strategic goal

The goal of the Bauchi State NTD Strategy is to progressively reduce morbidity, disability and mortality due to NTDs in the State through 100% geographic treatment coverage for onchocerciasis, lymphatic filariasis and schistosomiasis infections; using integrated and cost-effective approaches.

#### **Specific objectives**

- 1. To attain a maximum of 80% therapeutic coverage in all endemic LGAs in the State for Oncho, LF and 75% for Schisto in 2018 and 2019.
- 2. To strengthen coordination and relationship with partners at all level of implementation through stakeholders meetings in the state in 2018 and 2019
- 3. To conduct high level advocacy to all policy makers and traditional rulers in 19 LGAs of Bauchi State in 2018 and 2019
- To ensure that Bauchi State builds the capacity of 10,720 community implementers, 1,738 frontline health facility staff, 95 Local NTD team members and 10 State NTD Team members each year.
- 5. To ensure effective monitoring and supervision of NTDs are conducted in the state in 2018 and 2019



Map of Bauchi state

# Bauchi State PC-NTDs Co-Endemicity Map





# **Programme targets**

| Beneficiaries   | 2018 Targets   | 2019 Targets       |
|---|----------------|--------------------|
| No. of stakeholders and policy makers visited           | 300            | 300                |
| No. of planning meetings                                | 42             | 42                 |
| No. of participants at state stakeholders coordination  | 42             | 42                 |
| meetings to harmonize interventions                     |                |                    |
| No. of participants at the annual state review meeting  | 59             | 59                 |
| No. of State NTD team members trained                   | 10             | 10                 |
| No. of LGA NTD team members trained                     | 95             | 95                 |
| No. of front line health facility staff trained         | 1,738          | 1,738              |
| No. of community based organisations trained            | 100            | 100                |
| No. of national youth service corps members trained     | 100            | 100                |
| No. of community/district leaders trained on social     | 192            | 192                |
| mobilisation  |                |                    |
| No. of community implementers trained                   | 10,720         | 10,720             |
| No. of school aged children treated for schistosomiasis | 1,075,796      | 1,102,691          |
|   | 75% of at risk | 75% of at risk SAC |
|   | SAC            |                    |
|   |                |                    |
| No. of people treated for Lymphatic Filariasis          | 2,871,026      | 2,942,801          |
|   | 80% of         | 80% of population  |
|   | population     |                    |
|   |                |                    |
| No. of people treated for onchocerclasis                | 2,992,858      | 3,067,679          |
|   | 80% of         | 80% of population  |
|   | population     |                    |
|   |                |                    |



#### Planned activities

To achieve these targets, the following activities will be implemented:

| Macro Level NTD Components   | Activities  |
|--|---|
| Advocacy and capacity building                                     | State stakeholders meetings   |
|  | Planning and appraisal meetings   |
| Mass Drug Administration   | Drug procurement  |
|  | Data validation, collection and collation   |
| Behaviour change communication /<br>information material campaigns | Implementation of behavioural change communication<br>(BCC) /Information, Education and communication (IEC)<br>campaigns        |
|  | Printing of communications materials for campaigns in local languages   |
| Trainings and capacity building                                    | Training of 10 State NTDs team members  |
| workshops  | Training of 95 LGA NTDs team members  |
|  | Training of 1,738 Front Line Health Workers for oncho/<br>LF MDA and schisto MDA  |
|  | Training of community implementers, community based<br>organisations, national youth service corps and<br>community influencers |
| Monitoring and supervision of                                      | Monitoring of project activities in the State   |
|  | Supervision of project activities in the State  |

**Please note:** Teachers are not planned to be used for schistosomiasis MDA in Bauchi state due to previous experience in the pilot LGA where schisto intervention took place in 2014.

#### Monitoring and evaluation activities

The performance and impact of interventions will be monitored through:

- post treatment coverage surveys;
- establishment of sentinel sites for schistosomiasis / STH;
- support for LF pre-TAS (Treatment Assessment Survey) in two LGAs<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Lymphatic filariasis MDA started in the state in 2011 in four LGAs and in 2014 it was scaled up to all the 11 LF endemic LGAs in the state. Currently two LGAs are eligible for LF pre-TAS (Treatment Assessment Survey) in the state .



#### Advocacy and planning activities

**Planning meetings with all stakeholders:** A planning meeting with all the partners including the Federal Ministry of Health (FMOH), State Ministry of health (SMOH), MITOSATH and LGAs will be held to ensure successful programme implementation. Gaining commitments from government structures at all levels from federal down to LGA and seeing that their respective commitments are received during programme implementation.

Advocacy to key policy makers: To ensure a successful project, advocacy visits will be carried out to the Commissioner for Health, Chairman Primary Health Care Development Agency, State Universal Basic Education Board (SUBEBE) and other state stakeholders to sensitize them on Sightsavers' intention for the support of MDA for four NTDs in the state.

#### Mass Drug Administration (MDA)

**Drug collection, delivery and distribution:** Drug requests for the year will be received from the MoH medical stores in Lagos, and handed over to the State for onward distribution to the endemic LGAs. Based on the APOC community directed intervention protocol, the drugs pass through various levels to get to the community. Drugs handed over to the state NTD team will be shared based on census data to the LGA Onchocerciasis coordinators who distribute the drugs to the front line health facilities in their LGA. Community Drug Distributors (CDDs) then access drugs for distribution through their front line health facility.

#### Social behaviour change communication / Information campaign

**Community mobilization and sensitization:** Effective mobilization and sensitization on health education is key for community participation in any health programme. Acceptability of the mass drug administration with be aided with behavioural change communication materials including airing of radio jingles and distribution of posters and flyers.

#### Trainings and capacity building workshop

**Training of health personnel:** This will improve the capacity of the health personnel on programme implementation, monitoring and data management resulting in better implementation strategies, plans and quality data management. Personnel to be trained include state, LGA and front line health facility staff.

**Training of community volunteers:** This will improve the capacity of CDDs on effective drug distribution and data management resulting in better distribution of drugs and quality data collection and collation. CDDs will be selected from each endemic community in the endemic LGAs; this selection will be done by community leaders.

**Training of NYSC, community based organisations and community leaders:** This training will be done alongside that of health workers and community volunteers to encourage community self monitoring of activities at the LGA and community level. These leaders and groups will also serve as agents of social behaviour change communication during the interventions in their respective LGAs and communities.



#### Monitoring and supervision of project

**Monitoring and supervision of activities at different levels:** For effective implementation of all activities, it is mandatory to monitor and supervise to ensure standard and resolve challenges as they arise. This is carried out at each level.

**Data collection and collation and reporting:** Data collection and collation takes place during each level of activity. The CDDs collate community data and provide to the front line health facility, who in turn summarizes this and provides to the LGA team. The LGA team collates all their front line health facility data and provides to the State, where data is verified.

#### **Programme management**

In Bauchi State, Sightsavers will support the state MoH through MITHOSATH, the NTD NGDO partner for the state. The MITOSATH team include a Program Officer, an M&E Officer, a Finance Officer/Accountant, Project Drivers and an Office Cleaner.

MITOSATH will need to recruit a Program Officer, M&E Officer and a Driver who will be dedicated to the project for the duration. Other Sightsavers head office staff will work on the project alongside the dedicated project staff.

#### Sightsavers strategic logic for expansion

Nigeria has 36 states and each state has an NGDO supporting NTDs, but there are seven states that have received limited or no funding. The national NTD Steering Committee and the Federal Ministry of Health have appealed to NGDOs to extend support to Bauchi.

MITOSATH has indicated its interest to extend this support and are currently supporting a few LGAs and this is usually ad hoc i.e. the support is not consistent. Sightsavers has worked with MITOSATH on the UNITED Integrated NTD Project in Niger state and therefore has experience working with the organization.

Bauchi state is also part of the new funding secured for trachoma elimination in which Sightsavers is coordinating. This funding will further compliment the efforts of the state to achieving the state's NTD elimination / control targets. We believe that this is a strategic fit to ensure that we have an integrated NTD elimination programme in Bauchi, hence Sightsavers' decision to work with MITOSATH toward this goal.



#### Table 1: ONCHO/LF POPULATION AND TARGETS

|     | 2018 AND 2019 ONCHO AND LF TARGET POPULATION |                                     |                                     |                                    |                                    |              |
|-----|--|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|--------------|
| S/N | LGAs   | 2018 NPC<br>PROJECTED<br>POPULATION | 2019 NPC<br>PROJECTED<br>POPULATION | 2018 80%<br>TARGETED<br>POPULATION | 2019 80%<br>TARGETED<br>POPULATION | INTERVENTION |
| 1   | Bauchi*                                      | 263,080                             | 269,657                             | 210,464                            | 215,726                            | ONCHO ONLY   |
| 2   | Tafawa<br>Balewa                             | 295,859                             | 303,256                             | 236,687                            | 242,605                            | ONCHO/LF     |
| 3   | Toro   | 471,254                             | 483,035                             | 377,003                            | 386,428                            | ONCHO/LF     |
| 4   | Bogoro                                       | 113,259                             | 116,091                             | 90,607                             | 92,873                             | ONCHO/LF     |
| 5   | Ningi  | 520,730                             | 533,748                             | 416,584                            | 426,998                            | ONCHO/LF     |
| 6   | Warji  | 154,286                             | 158,143                             | 123,429                            | 126,514                            | ONCHO/LF     |
| 7   | Ganjuwa                                      | 377,198                             | 386,628                             | 301,758                            | 309,302                            | ONCHO/LF     |
| 8   | Alkaleri                                     | 443,039                             | 454,115                             | 354,431                            | 363,292                            | ONCHO/LF     |
| 9   | Darazo                                       | 338,370                             | 346,829                             | 270,696                            | 277,463                            | ONCHO/LF     |
| 10  | Misau  | 354,361                             | 363,220                             | 283,489                            | 290,576                            | ONCHO/LF     |
| 11  | Giade  | 211,106                             | 216,384                             | 168,885                            | 173,107                            | ONCHO/LF     |
| 12  | ltas /<br>Gadau                              | 309,319                             | 317,052                             | 247,455                            | 253,642                            | LF ONLY      |
| 13  | Kirfi  | 198,530                             | 203,493                             | 158,824                            | 162,794                            | ONCHO ONLY   |
|     | TOTAL  | 4,050,391                           | 4,151,651                           | 3,240,312                          | 3,321,320                          |              |



#### Table 2: SCHISTOSOMIASIS POPULATION AND TARGETS

|     | 2018 AND 2019 SCHISTOSOMIASIS TOTAL AND TARGET POPULATION |            |           |            |            |            |            |
|-----|---|------------|-----------|------------|------------|------------|------------|
| S/N | LGA   | 2018 NPC   | 2019 NPC  | 2018 SAC   | 2019 SAC   | 2018 SAC   | 2019 SAC   |
|     |   | TOTAL      | TOTAL     | TOTAL      | TOTAL      | TARGET     | TARGET     |
|     |   | POPULATION | POPLATION | POPULATION | POPULATION | POPULATION | POPULATION |
| 1   | Bauchi  | 664,120    | 680,723   | 185,954    | 190,602    | 139,465    | 142,952    |
|     | Tafawa  |            |           |            | 84,912     |            |            |
| 2   | Balewa  | 295,859    | 303,256   | 82,841     |            | 62,130     | 63,684     |
| 3   | Dass  | 120,963    | 123,987   | 33,870     | 34,716     | 25,402     | 26,037     |
| 4   | Toro  | 471,254    | 483,035   | 131,951    | 135,250    | 98,963     | 101,437    |
| 5   | Bogoro  | 113,259    | 116,091   | 31,713     | 32,505     | 23,784     | 24,379     |
| 6   | Ningi   | 520,730    | 533,748   | 145,804    | 149,449    | 109,353    | 112,087    |
| 7   | Warji   | 154,286    | 158,143   | 43,200     | 44,280     | 32,400     | 33,210     |
| 8   | Ganjuwa   | 377,198    | 386,628   | 105,615    | 108,256    | 79,212     | 81,192     |
| 9   | Kirfi   | 198,530    | 203,493   | 55,588     | 56,978     | 41,691     | 42,734     |
| 10  | Alkaleri  | 443,039    | 454,115   | 124,051    | 127,152    | 93,038     | 95,364     |
| 11  | Darazo  | 338,370    | 346,829   | 94,744     | 97,112     | 71,058     | 72,834     |
| 12  | Shira   | 314,723    | 322,591   | 88,122     | 90,325     | 66,092     | 67,744     |
| 13  | Jama'are  | 158,540    | 162,503   | 44,391     | 45,501     | 33,293     | 34,126     |
| 14  | Itas/Gadau  | 309,319    | 317,052   | 86,609     | 88,775     | 64,957     | 66,581     |
| 15  | Zaki  | 257,488    | 263,925   | 72,097     | 73,899     | 54,073     | 55,424     |
| 16  | Gamawa  | 385,160    | 394,789   | 107,845    | 110,541    | 80,884     | 82,906     |
|     | TOTAL   | 5,122,838  | 5,250,908 | 1,434,395  | 1,470,253  | 1,075,795  | 1,102,691  |

\* School aged children at risk population is calculated at 28% of projected population. The School aged children targets are calculated at 75% of at risk school aged children. 2.5% annual growth rate was used to project the NCP population.



#### ANNEXES

Treatment of onchocerciasis with Ivermectin started in Bauchi state with UNICEF support in 1991. The project received additional support from APOC in the year 2000 for CDTI implementation in 13 LGAs. In 2004 REMO was refined and based on the result of the REMO, 7 LGAs were dropped and 5 new LGAs were added to the project area. Co-implementation of onchocerciasis and lymphatic filariasis started in the state in 2011 in four LGAs and in 2014 it was scaled up to all the 11 LF endemic LGAs. In 2014, the project changed its approach from oncho/LF to NTDs where by schisto/STH treatment was done in one LGA.

#### Table 1: Bauchi State Onchocerciasis endemicity

| LGAs              | Location/<br>Site/  | Prevalence<br>(numbers/<br>rate/propor<br>tion) % | Study<br>method | Year of<br>survey and<br>reference |
|-------------------|---|---|-----------------|------------------------------------|
| Alkaleri          | Pali, Bun ,Kufao, Gwana, Mansur, Kashete, Gajin<br>Duguri, Gwana, Kwala, Portto, Yolan Pali,<br>sharifuri, Garin Sarkin/R, Rafin Gora       | 4-42  | Nodule<br>rate  | 2000                               |
| Bauchi            | Runde, Dimdina, Burum, Lugge, Gubi, Febas<br>Dutse, Gurgu, Durbi, Gara, Rafin Gora, Gubi Dam<br>Vil, Goskoram                               | 2-14  | Nodule<br>rate  | 2000                               |
| Bogoro            | Ling, Dasi  | 0-4   | Nodule<br>rate  | 2000                               |
| Darazo            | Gabchiyari, Sade, Rampa, Duga, Kari, Soro,<br>Darazo, Zindi/Misau, Garkar Kashi,<br>Hashidu/G/Ab, Kili,                                     | 3.2-13  | Nodule<br>rate  | 2000                               |
| Dass              | Bagel, Dangri   | 8   | Nodule<br>rate  | 2000                               |
| Gamawa            | Dakasku   | 2   | Nodule<br>rate  | 2000                               |
| Ganjuwa           | Ganjuma, Dakasku Sharifuri, Garin Sarkin/R,<br>Dadin Kowa D, Lariski, Bara, Ringimi, Miya,<br>Kadiye, Nasarawa, Marga, Gyaduwa, Zala, Daben | 2-22  | Nodule<br>rate  | 2000                               |
| Kirfi             | Zagama, Bure, Lariski, Bara, Badara, Arawa, Kirfi,<br>Bigi, Soro, Abore,  | 4-18  | Nodule<br>rate  | 2000                               |
| Misau             | New Liji, Kwagom, Dam site, Dadin Kowa  | 30-42   | Nodule<br>rate  | 2000                               |
| Ningi             | Guda, Kafin Zaki, Tashan Maje, Ung/Sarkin Jakin,<br>Ung/Tudu, Gardan Maiwa, Zindiga, Nasaru, Maya,<br>Sama                                  | 5.7-26  | Nodule<br>rate  | 2000                               |
| Tafawa-<br>Balewa | Lere, Burga, Bununu, Boto   | 0   | Nodule<br>rate  | 2000                               |
| Toro              | Kayaure, Ribi, Rishi, Zendi, Ringim, Zango Zanga,<br>Gumau, Geji, Rauto, Banga, Lame, Rafin Gora  | 4-30  | Nodule<br>rate  | 2000                               |



# Table 2: Bauchi State Lymphatic Filariasis endemicity

| LGAs             | Location/<br>Site/ | Prevalence<br>(numbers/ | Study<br>method | Year of survey and |
|------------------|--------------------|-------------------------|-----------------|--------------------|
|                  |                    | rate/proportion)        |                 | reference          |
| Alkaleri         | Kundak             | 17.2                    | ICT             | 2008               |
| Bogoro           | Lusa               | 34.0                    | ICT             | 2008               |
| Darazo           | Kanya              | 13.5                    | ICT             | 2008               |
| Giade            | Uzum               | 4.1                     | ICT             | 2008               |
| Ganjuwa          | Garim<br>Galadima  | 3.9                     | ICT             | 2008               |
| Misau            | Beti               | 1.9                     | ICT             | 2008               |
| Ningi            | Tiffi              | 3.9                     | ICT             | 2008               |
| Tafawa<br>Balewa | Burga              | 8.0                     | ICT             | 2008               |
| Toro             | Nahuita Taba       | 14.0                    | ICT             | 2008               |
| Warji            | Dagu               | 34.0                    | ICT             | 2008               |
| Dass             | Dott               | 0.0                     | ICT             | 2013               |
| Kirfi            | Wanka              | 0.0                     | ICT             | 2013               |
| ltas gadau       | Ganjin Gabas       | 4.0                     | ICT             | 2013               |
| Jama'are         | Dogon Jaji         | 0.0                     | ICT             | 2013               |
| Shira            | Faggo              | 0.0                     | ICT             | 2013               |
| Gamawa           | Zindiwa            | 0.0                     | ICT             | 2013               |
| Zaki             | Kafin<br>Larabawa  | 0.0                     | ICT             | 2013               |
| Katagum          | Ragwam             | 0.0                     | ICT             | 2013               |
| Dambam           | Garin Jarmai       | 0.0                     | ICT             | 2013               |
| Bauchi           | Buzaye             | 0.0                     | ICT             | 2013               |



# Table 3: Bauchi State Schistosomiasis endemicity

| District/      | Location/   | Prevalence | Study      | Year of    |
|----------------|---|------------|------------|------------|
| Region/        | Site/   | (numbers/  | method     | survey and |
| Slale          |   | n)         |            | reference  |
| Alkaleri       | Jor, Natsira, Yelwan Duguri,                          | 15.6       | Urine      | 2014       |
|                | Abbas & Gacci   |            | filtration |            |
| Bauchi         | Birshin Fulani, Digam Yaya,                           | 12.9       | u          | "          |
|                | Kangere, Miri & Rafin Makaranta                       |            |            |            |
| Bogoro         | Yabran Kufai, Dutsen Lawan,                           | 26.4       | u          | "          |
|                | Bogoro, Lafiyan Sara & Banram                         |            |            |            |
| Damhan         | Damiyo Dambam Garuza                                  | 04         | a          | a          |
| Dumbur         | Yandabayo & Zaure                                     | 0.1        |            |            |
| Darazo         | Wahu, Ramfa, Fate, Darazo &                           | 5.9        | u          | a          |
|                | Darazo  |            |            |            |
| Dass           | Bangim, Dass, Darussalam, Bajar                       | 10         | u          | a          |
|                | & Baraza  |            |            |            |
| Gamawa         | Galjiri, Gololo, Abutta, Kuran Jeji                   | 23.2       | u          | a          |
| <u> </u>       | & Gamawa  | 10         |            |            |
| Ganjuwa        | Futuru, Siri zurhu, K/Madaki,<br>Miya & Soro          | 18         |            |            |
| Giade          | Kafin Hardo, Galdimari, Isawa,                        | 0.8        | u          | a          |
|                | Rumbuna & Abba korawa                                 |            |            |            |
| ltas/Gadu<br>a | Gululu, Itas, Diga, Gadau &<br>Magarya                | 5.6        | a          | a          |
| Jama'are       | Yola, Hanafari, Majebun-Narewa,                       | 13.6       | a          | "          |
|                | Fatiske & Allah Yayi                                  |            |            |            |
| Katagun        | Mango, Fanfon Shanu, Chinade,<br>Yayu & Abatiyo       | 0.4        | u          | u          |
| Kirfi          | Mainari, Bara, Jauro kawu,<br>kirfi/cheledi & Lariski | 4          | a          | u          |
| Misau          | Jarmari, Hardawa, Halayidi, Ajili &<br>Muttarwo       | 0          |            |            |
| Ningi          | Gwandabi, Kurmi, Kyata,<br>Agwarmaje & Luntu          | 17.1       | u          | u          |
| Shira          | Yana, Shira, Adamami, Disina &<br>Isore               | 12         |            |            |
| Tafawa-        | Duklin Bauchi, Gandu bula, Lar,                       | 27.9       | a          | a          |
| Balewa         | Bununu & Katsinawa                                    |            |            |            |
| Toro           | Lame, Gumau, Nabordo, Taka<br>Bundu & Toro            | 2          |            |            |
| Warji          | Baima, Digawa/Dairu, Tudun<br>Alheri, Aru & Katanga   | 28         | a          | α          |
| Zaki           | Lodiyo, Agusha, Sakwa, Matara &<br>Katagum            | 30.8       |            |            |



## Table 4: Bauchi State Soil Transmitted Helminths endemicity

| LGAs              | Location/<br>Site/   | Prevalence<br>(numbers/<br>rate/propor<br>tion) | Study<br>method | Year of<br>survey<br>and<br>reference |
|-------------------|--|---|-----------------|---------------------------------------|
| Alkaleri          | Jor, Natsira, Yelwan Duguri, Abbas & Gacci                         | 11.6  | Kato-<br>katz   | 2014                                  |
| Bauchi            | Birshin Fulani, Digam Yaya, Kangere, Miri & Rafin<br>Makaranta     | 4.7   | u               | ű                                     |
| Bogoro            | Yabran Kufai, Dutsen Lawan, Bogoro, Lafiyan Sara &<br>Banram South | 1.6   | u               | u                                     |
| Damban            | Damiyo, Dambam, Garuza, Yandabayo & Zaure                          | 7.2   | "               | a                                     |
| Darazo            | Wahu, Ramfa, Fate, Darazo & Darazo                                 | 9.5   | "               | a                                     |
| Dass              | Bangim, Dass, Darussalam, Bajar & Baraza                           | 5.6   | a               | a                                     |
| Gamawa            | Galjiri, Gololo, Abutta, Kuran Jeji & Gamawa                       | 5.6   | a               | a                                     |
| Ganjuwa           | Futuru, Siri zurhu, K/Madaki, Miya & Soro                          | 2.8   | "               | a                                     |
| Giade             | Kafin Hardo, Galdimari, Isawa, Rumbuna & Abba korawa               | 15.6  | "               | a                                     |
| ltas/Gad<br>ua    | Gululu, Itas, Diga, Gadau & Magarya                                | 11.6  | "               | a                                     |
| Jama'are          | Yola, Hanafari, Majebun-Narewa, Fatiske & Allah Yayi               | 9.6   | a               | a                                     |
| Katagun           | Mango, Fanfon Shanu, Chinade, Yayu & Abatiyo                       | 19.3  | a               | a                                     |
| Kirfi             | Mainari, Bara, Jauro kawu, kirfi/cheledi & Lariski                 | 12.4  | "               | a                                     |
| Misau             | Jarmari, Hardawa, Halayidi, Ajili & Muttarwo                       | 14.8  | a               | a                                     |
| Ningi             | Gwandabi, Kurmi, Kyata, Agwarmaje & Luntu                          | 13.6  | "               | a                                     |
| Shira             | Yana, Shira, Adamami, Disina & Isore                               | 16.8  | "               | a                                     |
| Tafawa-<br>Balewa | Duklin Bauchi, Gandu bula, Lar, Bununu & Katsinawa                 | 5.2   | "               | a                                     |
| Toro              | Lame, Gumau, Nabordo, Taka Bundu & Toro                            | 5.2   | a               | a                                     |
| Warji             | Baima, Digawa/Dairu, Tudun Alheri, Aru & Katanga                   | 15.6  | "               | a                                     |
| Zaki              | Lodiyo, Agusha, Sakwa, Matara & Katagum                            | 2.8   | "               | u                                     |

