

An Ethnobotanical Survey of Medicinal Plants or Preparations Sold in Markets of Zaria, Kaduna State, Nigeria

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ABSTRACT: The aim of this research is to conduct a random Ethnobotanical survey of herbal medicines sold in the markets of Zaria covering Samaru, Sabon Gari and Zaria City to document the vernacular and scientific names of the medicinal plants used in the herbal preparations, stating their method of preparations, administration and uses of these preparations. A random survey of medicinal plants sold in markets of Zaria revealed herbal medicinal plants from 62 different plant species belonging to 32 plant families for curing different ailments. The most mentioned families were Fabaceae with 12 species followed by Rubiaceae with 7 species, Mimosaceae and Combretaceae 4 species each and Euphorbiaceae 3 species. The remaining species were distributed among other families. The ailments mostly mentioned included pile, having 21 entries, typhoid fever 12 entries, aches /pains 12 entries, cancer 8 entries, cough/colds 7 entries, rheumatism 6 entries, hypertension 6 entries, diabetes 4 entries and sexual dysfunction 4 entries. Most of these preparations contained single plant for curing ailments, but the following contained more than one plant; aphrodisiacs 4, plus; anticancer, 2; antidiabetes, 3; pile, 3 and colds 3. While some of these were prepared from only one part of the plant(s), others were prepared from a combination of different plant parts.

Key Words: Ailments, Ethnobotanical survey, herbal preparations, medicinal plants, Zaria

1.0 Introduction

The use of herbal medicines is on the increase worldwide with the market standing at over US\$60 billion (PAXMAG 2008). About 80% of world population rely on herbal medicines for primary healthcare mainly countries in Africa and Asia (Cordell, 2002). Herbal preparations have had applications in Phytomedicine for a long time in the treatment of different ailments. This is exemplified by extracts of Ginkgo biloba in the treatment of ailments. This extract plays cardiovascular and hepatoprotective roles, anti-inflammatory, anti-tumor and anti-proliferation roles in addition to being an antidiabetes (Nuhu, 2014). The substances in the herbal preparations that help in alleviating ailments may be bioactive micronutrients or phytochemicals (Nuhu, 2014). World Health Organization define herbal medicines as finished labeled medicinal preparations that contain as active ingredients aerial or underground plant parts or other plant material or combination thereof, whether in crude state or as plant preparations; plant materials include juices, gums, fatty oils or any other substances of this nature (WHO, 1996).

These substances are sold as fresh or dried plant parts, powders or extracts which are not

standardized nor are they rigorously screened for efficacy, toxicity and safety (Bent, 2008). People take these herbal medicines because they believe that they can cure ailments or because they cannot afford Orthodox medicines believing that 'natural equals safe' (Bent, 2008, Lynch and Berry, 2007). However, it has been observed in animal experiments that, some of these herbal remedies can be toxic and damaging to the liver (Nuhu and Aliyu, 2008). In Zaria; herbal medicines are sold by herbal medicine men, vendors and hawkers on the streets or in stalls found in designated markets such as the Zaria City Monday market.

The aim of this survey is to document some herbal medicines sold in markets of Zaria. The documentation of the herbal medicines sold in the markets of Zaria included gathering information on vernacular names of plants, plant parts used, mode of preparation of the herbal medicines, dose, composition of the medicines, uses, administration and any side effects after administering the medicines.

The survey also focused on the scientific identification of the plants used and voucher numbers collected from the herbarium in order to determine the most frequently used herbal

medicines thus, creating a data base of some herbal medicines sold in Zaria markets. Descriptive statistics was used in calculating frequency and percentage of each medicinal plant mentioned in the survey to ascertain the most frequently used herbal medicinal plants.

2.0. Methodology

In Zaria there are many stalls and stands at markets where herbal medicines are sold either as fresh plant parts, or powders, decoctions, infusions or tinctures. Those who deal in the business of herbal medicines are herbal medicine men, vendors, or hawkers not restricted to any particular gender, but most are adults. Participants in the survey were first informed of the intension of the survey before the interview commenced. Those that saw the survey as a threat to their means of livelihood refused to participate in the survey. Some on the other hand demanded huge amount of money as compensation for the services to be rendered mistaking our intentions as trying to learn the trade for profits. However, some of them cooperated with us and gave us audience. A semi-structured interview, following the method of Mann *et al.* (2007) was conducted seeking the following information: Vernacular name of herbal medicinal, presentation, plants used, plant parts used, location from where plants were collected, and method of preparation of the herbal medicine. Further information was sought on the uses of herbal medicines, administration, dose and any side effects from administering the herbal medicine.

The survey was conducted from August 2015 to February 2016 covering Samaru, Sabon Gari and Zaria City markets. Three medicine men, four vendors, seven informants and two hawkers were asked to give ten different medicinal plants or preparations and to supply the needed information required by the semi structured interview. The interview was conducted twice at different times to ascertain the truthfulness of the information gathered. One hundred and sixty names of medicinal plants were collected from sixteen respondents and eighty five of them were repetitions and samples of these were collected once. The recorded number of samples with voucher numbers was sixty-nine samples. To

gain the confidence of the sellers, monetary favours were doled out and samples of the medicinal plants were collected and taken to the herbarium at the Department of Biological Sciences Ahmadu Bello University Zaria for identification and authentication by Namadi Sunusi; voucher numbers were recorded. The data collected were analyzed using descriptive statistics.

3.0. Results and Discussion

The survey of medicinal plants and preparation sold in the markets of Zaria yielded 69 different medicinal plants and or preparations for the treatment of different ailments and for different other human health benefits as represented in Table 1. A total of 62 species belonging to 32 families were reported in Zaria markets of Sabon Gari, Zaria city and Samaru. The family that had the largest number of species was Fabaceae which had 12 species; followed by Rubiaceae with 7 species, while Mimosaceae and Combretaceae had 4 species each and the remaining species were distributed among other families. From this survey and that conducted by Gebrezgabihier *et al.* (2013) it is observe that the Fabaceae family is common in the treatment of both animal and human ailments, while Sharibi *et al.* (2014) indicated that for the treatment of hyper-prolactinemia in Lagos State, Nigeria the Asteraceae had the highest number of plant species in the treatment of hyper-prolactinemia.

Table 2 shows the frequency distribution of the medicinal plants and or preparations in markets of Zaria. The medicinal plants that had the highest frequency indicating their popular use were Zinzina (*Cochlospermum planchonii*), Marke (*Anogeissus leiocarpus*) and Kiriya (*Prosopis africana*) each with a frequency of 5 representing 6.02%. This was followed by Ararrabi (*Boswellia serrata*) and Gamji (*Fiscus platyphylla*) with a frequency of 4 representing 4.82 %. On the other hand, Bagaruwa (*Acacia nolitica*), Huntu (*Thesuum viride*), Tsamiya (*Tamarindus indica*) Tuna (*Pseudoce dre la*

kotschy) Malmo (*Eugenia jambolana*), Danya (*Sclerocarya brerri*) and Runhu (*Senna singuena*) had a frequency of 3 each representing 3.61%. Others had the frequencies between 1 and 2 representing 1.20 and 2.40 percent respectively.

The most popular uses as seen in Table 3 were for the treatment of piles (hemorrhoids) with 21 entries representing 15.33% of the 137 ailments recorded; this was followed by aches /pains and typhoid fever at 12 entries each representing 8.76% this was followed by cancer having 8 entries representing 5.84%. Other ailments for which plant remedies were used included colds, rheumatism, and hypertension each having an entry of 6 representing 4.37%. Diabetes, sexual dysfunction and high fever recorded 4 entries each representing 2.92% the remaining had entries between 1 and 2 representing 0.73 and 1.46% respectively. Most of these were administered orally as decoctions as recorded by Ampitan (2013). The plant parts mostly used are the stem bark with 39 entries (28.46 %) followed by leaves and roots with 34 (24.81%) and 24 (17.52%) entries respectively. The use of whole plant had 4 (2.9%) entries; fruits had 3 entries while flowers and seeds had 2 entries each. These results are close to those reported by Ahemu *et al.* (2014) in the treatment of viral infections

- ii. Plants most frequently used for herbal preparations are: *Cochlospermum planchonii*, *Anogeissus leiocarpus* and *Prosopis africana*
- iii. The ailments mostly mentioned in the application of these medicinal plants/preparations included; pile, typhoid fever, aches /pains, cancers, cough/colds, rheumatism, hypertension, diabetes and sexual dysfunction.
- iv. From this survey it is now known that the plant parts mostly used for herbal preparations found in Zaria markets are the stem bark, leaves and roots in that order followed by whole plants and fruits and least flowers and seeds

4.0. Conclusion

- i. It has now been documented that in markets of Zaria, 62 species of plants covering 32 families are available as medicinal plants or preparations 69 of these medicinal plants have been deposited at the Herbarium of Ahmadu Bello University, Nigeria and voucher numbers recorded.

Table 1: List of Ethnobotanical survey of herbal medicines

S/N	Vernacular Name	Family	Genera	Species	V/No
1	Adduwa	Balinitaceae	<i>Balanites</i>	<i>aegyptiaca</i>	2064
2	Aduruku	Bignoniaceae	<i>Newbouldia</i>	<i>leavis</i>	2881
3	Ararrabi	Burseraceae	<i>Boswellia</i>	<i>serrata</i>	2448
4	Asiwo Oyingbo	Fabaceae	<i>Senna</i>	<i>alata</i>	1236
5	Bagaruwa	Mimosaceae	<i>Acacia</i>	<i>nolitica</i>	6924
6	Barbata	Combretaceae	<i>Guiera</i>	<i>senegalensis</i>	1823
7	Baushi	Combretaceae	<i>Terminalia</i>	<i>avicenoides</i>	900239
8	Binida Zugu (Chinida zugu)	Euphorbiaceae	<i>Jatropha</i>	<i>curcas</i>	12003
9	Ciwo	Rubiaceae	<i>Nauclea</i>	<i>lafifolia</i>	1268
10	Cizaki	Apocynaceae	<i>Carissa</i>	<i>edulis</i>	601
11	Daddoyan Daji	Lamiaceae	<i>Hyptis</i>	<i>suavelens</i>	578
12	Danya	Anacardiaceae	<i>Sclerocarya</i>	<i>brerri</i>	6871
13	Dashi	Burseraceae	<i>Commiphora</i>	<i>africana</i>	2848
14	Dindu	Mimosaceae	<i>Dichrostachys</i>	<i>Cinerea</i>	1384
15	Doddoya	Lamiaceae	<i>Ocimum</i>	<i>gratissimum</i>	1285
16	Dorowa	Mimosaceae	<i>Parkia</i>	<i>biglobosa</i>	2846
17	Effirin-gogoro	Verbenaceae	<i>Lippia</i>	<i>cupanioides</i>	12034
18	Effirin-Okò (Y	Rubiaceae	<i>Pavetta</i>	<i>crassipes</i>	3115
19	Filaskon Bature	Fabaceae	<i>Senna</i>	<i>alata</i>	1521
20	Gamji	Moraceae	<i>Fiscus</i>	<i>platyphylla</i>	7230
21	Ganyin Shayi (lemon grass)	Poaceae	<i>Cymbopogon</i>	<i>citratus</i>	1182
22	Gaude	Rubiaceae	<i>Gardenia</i>	<i>aqualla</i>	1895
23	Gogamasu	Rubiaceae	<i>Mitrascapus</i>	<i>scaber</i>	1070
24	Gurjiya	Malvaceae	<i>Bombax</i>	<i>costatum</i>	1211
25	Hano	Bursaraceae	<i>Boswellia</i>	<i>dalizielii</i>	2448
26	Hankufa	Sterculaceae	<i>Waltheria</i>	<i>indica</i>	600
27	Harwatsi	Rubiaceae	<i>Mitracarpus</i>	<i>scaber</i>	1074
28	Hawayi Zaki	Anacardaceae	<i>Heeria</i>	<i>insignis</i>	014
29	Huntu	Santalaceae	<i>Thesuum</i>	<i>viride</i>	6986
30	Idonzakara	Fabaceae	<i>Abrus</i>	<i>precatorius</i>	932
31	Jan fulawa	Euphorbiaceae	<i>Acalypha</i>	<i>wilkiensis</i>	223
32	Jiri	Bignonaceae	<i>Stereospermum</i>	<i>kunthianum</i>	900125
33	Kade	Sapotaceae	<i>Vitellaria</i>	<i>paradoxum</i>	900072
34	Karki	Mimosodecae	<i>Acacia</i>	<i>polycantha</i>	1920
35	Karya garma	Rubiaceae	<i>Borreria</i>	<i>verticillata</i>	670
36	Kayan Rukumi	Acanthaceae	<i>Hygrophila</i>	<i>ciuriculata</i>	26
37	Kimbar daji	Liliaceae	<i>Xylophia</i>	<i>africana</i>	21
38	Kiriya	Mimosaceae	<i>Prosopis</i>	<i>africana</i>	900251
39	Kirni	Euphorbiaceae	<i>Bridelia</i>	<i>ferruginea</i>	937

40	Kwandar daji	Annonaceae	<i>Annona</i>	<i>sengalensis</i>	1707
41	Madubiya	Fabaceae	<i>Ptercarpus</i>	<i>erinaceus</i>	1196
42	Magarya	Rhamnaceae	<i>Zizphus</i>	<i>abyssinica</i>	527
43	Malmo	Myrtaceae	<i>Eugenea</i>	<i>jambolana</i>	900127
44	Marga	Fabaceae	<i>Senna</i>	<i>arereh</i>	900218
45	Marke	Combretaceae	<i>Anogeissus</i>	<i>leiocarpus</i>	1738
46	Minjirya	Papilionaceae	<i>Erythrina</i>	<i>senegalensis</i>	6869
47	Miyam Tsanya	Malvaceae	<i>Sida</i>	<i>acuta</i>	664
48	Pida hakukuwa	Acanthaceae	<i>Dyschoriste</i>	<i>perrottetii</i>	1186
49	Rai daure (Yawarai)	Fabaceae	<i>Senna</i>	<i>occidentalis</i>	1047
50	Rama-Rama	Malvaceae	<i>Urena</i>	<i>lobata</i>	024
51	Runhu	Fabaceae	<i>Senna</i>	<i>singuena</i>	189
52	Runhu Bature	Fabaceae	<i>Senna</i>	<i>siamae</i>	900078
53	Shiriya	Moraceae	<i>Ficus</i>	<i>heophyta</i>	1894
54	Shuwakan Jangargari	Fabaceae	<i>Cassia</i>	<i>nigricans</i>	613
55	Sinsiyam Maza	Poaceae	<i>Loudetia</i>	<i>phragmifoides</i>	647
56	Soson danga	Cucurbitacea	<i>Lufta</i>	<i>aegyptica</i>	693
57	Sutura	Crusaceae	<i>Brgophyllum</i>	<i>pinnatum</i>	1203
58	Tatsinya	Amaranthaceae	<i>Amaranthus</i>	<i>viridus</i>	889
59	Taura	Fabaceae	<i>Detarium</i>	<i>microcarpus</i>	480
60	Tsamiya	Fabaceae	<i>Tamarindus</i>	<i>Indica</i>	602
61	Tsanya	Polygalaceae	<i>Securindaca</i>	<i>longipedunculata</i>	1402
62	Tuna	Meliaceae	<i>Pseudocedrela</i>	<i>kotschyi</i>	900145
63	Tunfafiya	Asclepiadaceae	<i>Colotropis</i>	<i>procera</i>	900219
64	Tuwon Biri	Rubiaceae	<i>Nuclea</i>	<i>latifolia</i>	1268
65	Umbrella	Combretaceae	<i>Terminalia</i>	<i>catappa</i>	1556
66	Ugu	Cucurbitacea	<i>Lufta</i>	<i>aegyptica</i>	693
67	Yadiya	Asclepiadaceae	<i>Laptadenia</i>	<i>hastata</i>	900220
68	Zamarke	Fabaceae	<i>Sesbania</i>	<i>Sesban</i>	900177
69	Zinzina	Cochlospermaceae	<i>Cochlospermum</i>	<i>planchonii</i>	2759

Table 2: Frequency distribution of medicinal plants and or preparations in Markets of Zaria

S/N	Name of medicinal plant	Tally	Frequency	Cumulative frequency	Percentage (%)
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1	Ararrabi		4	4	4.82
2	Zinzina or Rawaya		5	9	6.02
3	Runhu		3	12	3.61
4	Kawuri		1	13	1.20
5	Tsada		1	14	1.20
6	Marke		5	19	6.02
7	Kiriya		5	24	6.02
8	Tsamiya		3	27	3.61
9	Bagaruwa		3	30	3.61
10	Sabara		4	34	4.82
11	Huntu		3	37	3.61
12	Minjirya		2	39	2.40
13	Taura		1	40	1.20
14	Gamji		4	44	4.82
15	Tuna´		3	47	3.61
16	Tsanya		2	49	2.40
17	Gyeza		1	50	1.20
18	Mangoro		1	51	1.20
19	Gadaugadau		2	53	2.40
20	Wurishi		1	54	1.20
21	Kirni		2	56	2.40
22	Kukuki		2	58	2.40
23	Dinya		1	59	1.20
24	Katala		1	60	1.20
25	Moda		2	62	2.40
26	Baure		3	65	3.61
27	Tawasa		2	67	2.40
28	Jiri		1	68	1.20
29	Dorowa		2	70	2.40
30	Adduwa		2	72	2.40
31	Lalo		1	73	1.20
32	Dashi		1	74	1.20
33	Baushi		2	76	2.40
34	Dindu		2	78	2.40
35	Tuwon Biri		1	79	1.20
36	Uwar Maganguna		2	81	2.40
37	Gaude		2	83	2.40
38	Juko		1	84	1.20
39	Magarya		2	86	2.40
40	Kurna		1	87	1.20
41	Rama-Rama		1	88	1.20
42	Hawayen Zaki		1	89	1.20
43	Umbrella		1	90	1.20
44	Gurjiya		1	91	1.20
45	Cizaki		1	92	1.20
46	Ganyanshayi		1	93	1.20
47	Gogamasa		1	93	1.20
48	Malmo		3	96	3.61
49	Kade		1	97	1.20

50	Ciwo		1	98	1.20
51	Shiriya		1	99	1.20
52	Shuwakajangargari		1	100	1.20
53	Sutura		1	101	1.20
54	Gwandar daji		2	102	2.40
56	Doddoya		1	103	1.20
57	Tunfafiya		1	104	1.20
58	Janfulawa		1	105	1.20
59	Idon zakara		1	106	1.20
60	Filaskon Bature		1	107	1.20
61	Zogala		1	108	1.20
62	Nono kurchiya		1	109	1.20
63	Tatsanya		2	111	2.40
64	Soson danga		1	112	1.20
65	Kauci		1	113	1.20
66	Kayan Rakumi		1	114	1.20
67	Tsinsiyan Maza		1	115	1.20
68	Marga		1	116	1.20
69	Yawarai (Riaduaire)		2	118	2.40
70	Binida zugu		2	120	2.40
71	Hankufa		2	122	2.40
72	Barbata		1	123	1.20
73	Danya		3	126	3.61
74	Miyan Tsanya		1	127	1.20
75	Harwatsi		1	128	1.20
76	Efiri		2	130	2.40
77	Aduruku		1	131	1.20
78	Zamarke		1	132	1.20
79	Madubiya		1	133	1.20
80	Karki		1	134	1.20
81	Runhu Bature		1	135	1.20
82	Riaduaire		1	136	1.20
83	Karya garma		1	137	1.20

Table 3: Ethno Botanical Survey of Herbal Medicines in Markets of Zaria

	Name of Medicine	Physical form	composition	Method of preparation	Name of plant used	Parts of plant(s) used	Location	Uses	Administration	Dose	Mentioned Side effects
1	Ararrabi or bazana	Powder	single	decoction	Ararrabi or bazana	Stem Bark	Zaria	Pile/ cancer	Oral	½ cup 2x daily	None
2	Maganin shawara	powder	single	decoction	Zinzina or Rawaya	Stem bark and roots	Zaria	Yellow fever	oral	Cup daily	None
3	Runhu	powder	single	decoction	Runhu	Leaves	Zaria	Aches, pains and lactation	Oral, in nono for aches and pains but for lactation in pap	Cup daily	None
4	Kawuri	powder	single	decoction	Kawuri	Stem bark	Zaria	Pile, typhoid and diabetes	oral in nono or in pap	Cup 2x daily	None
5	Tsada	Stem bark	single	infusion	Tsada	Stem bark	Zaria	Pile, cancer and aches	Oral in nono or in pap	Cup 2x daily	None
6	Marke	Stem bark	single	Pound add to water	Marke	Stem bark	Zaria	Colds	Oral in nono or pap	Cup daily	None
7	Kiriya	Stem bark	single	Pound	Kiriya	Stem bark	Zaria	Pile, joints, general body pains , tooth ache and burns	Oral for pile , joints and general body pains and filling of cavity for tooth ache but topical application for burns	Cup1x daily and fillings 1X daily and topical daily application on burns	None
8	Tsamiya	Stem bark	single	pound	Tsamiya	Stem bark	Zaria	Pile	Oral in nono	Cup daily	None
9	Bagaruwa	Fruits could also add Tawasa stem bark	single	pound	Bagaruwa	Fruits	Zaria	Ulcer, typhoid and pile	Oral in one can of liquid peak milk or with honey for ulcer for pile insert into anus after mixing with share butter	table spoonful in can of liquid peak milk 2X daily and anal inserts daily	None

S/N	Name of Medicine	Physical Form	Composition	Preparation	Plant(s) used	Part(s) used	Location	Uses	Administration	Dose	mentioned Side effects
10	Huntu	Whole plant	single	Decoction +potash or make an infusion	Huntu	Whole plant	Kachia	Typhoid fever	oral	Cup 2x daily after meals	none
11	Maganin basir	Stem barks	Taura/Gamji/tuna	Decoction +potash	Taura/Gamji/tuna	Stem bark	Zaria	Pile	Oral/ sit in decoction	Cup 2x	none
12	Maganin shawara	Stem bark	Minjirya/Huntu/Zinzina	decoctions	Minjirya/Huntu/Zinzina	Whole/ stem bark/ stem bark	Zonkwa/Kachia	Yellow fever	oral	2 cups daily	none
13	Tsanya	root	single	Decoction /infusion	Tsanya	roots	Zaria	Colds and rheumatism	oral	cup daily	none
14	Gyeza	leaves	single	decoction	Gyeza	leaves	Zaria	hypertension	oral	Cup daily	none
15	Maganin Ciwo sugar	Whole/bark/ bark	Huntu, Mangoro, and Zinzina	Decoction +potash	Mangoro Huntu, Zinzina	Whole/ste m bark/stem bark	Zaria	diabetes	oral	Cup 2x daily	none
16	Wurishi	Stem bark	single	pound	Wurishi	Stem bark	Saminaka	witches	oral	½ tables spoonful in food 2Xdaily for 3days	none
17	Kirni	Stem bark	single	Decoction or maceration	Kirni	Stem bark	Zaria	Dysentery, tape worm	oral	½ Cup 2x daily	none

S/N	Name of Medicine	Physical form	Composition	Method of preparation	Name of plant	Plant part	location	uses	Administration	Dose	Mentioned Side effects
18	kukuki	Roots	Kukuki and condiments	decoction	Kukuki	Roots, stem bark	Zaria	Roots for Colds, while stem bark for diabetes	oral	For colds ½ cup 3x of root decoction, for diabetes Cup 1x of stem bark decoction	None
19	Maganin basir	Stem bark	Dinya, Kiriya and Hano	infusion	Dinya, Kiriya and Hano	Stem bark	Zaria	Pile/dysentery	oral	Cup 3x	None
20	Katala	roots	single	Decoction + potash	Katala	roots	Zaria	Amosani	oral	Cup 2x daily	None
21	Moda	Roots	single	Decoction with no additions for STD/ decoction with Kananfari	Moda	root	Zaria	STD/ penile enlargement	oral	Cup 2x daily	None
22	Maganin daji	Leaves of Sahbara and stem bark.	Sahbara leaves and Baure stem bark	decoction	Sahbara and Baure	Sahbara Leaves and Baure stem bark	Zaria	cancer	Oral and topical application of the decoction	Cup 2x/rub on body	None
23	Lalo	leaves	single	Boil with potash	Lalo	leaves	Zaria	Diabetes	oral	Small cup 2x daily	None
24	Minjirya	Stem bark	single	infuse	Minjirya	Stem bark	Zaria	typhoid	oral	Cup 2x daily	None

S/N	Name of Medicine	Physical form	Composition	Method of preparation	Name of plant used	Plant Parts used	location	Uses	Administration	Dose	Mentioned Side effects
25	Jiri	Stem Bark or leaves	Single	Pound stem bark but Crush fresh leaves	Jiri	Stem Bark or leaves	Zaria	Wounds	Topical	Apply liberally to wound	none
26	Tsanya	Roots	Single	Decoction	Tsanya	Roots	Zaria	Colds/ catarrh	Sniff/ oral	Sniff root powder generously and drink 1cup 3x daily	none
27	Dorowa	Stem Bark	Single	Decoction	Dorowa	Stem Bark	Zaria	Elah	Baths	Bucket of water containing decoction	none
28	Tuna	Stem Bark	Single	Macerate in nono	Tuna	Stem Bark	Zaria	Stomach ache	Oral	Cup 2xdaily	none
29	Adduwa	Powdered leaves	Single	Grind or pound and sieve	Adduwa	Leaves	Zaria	Coronary problems	Oral	Teaspoonful in cup of nono	none
30	Dashi	Stem Bark	Single	Pound or macerate	Dashi	Stem Bark	Zaria	Cancer and pile	Oral and topical application	Teaspoonful in cup of water 3x daily/apply paste	none
31	Gadaugadu	Leaves	Single	Pound with potash	Gadaugadu	Leaves	Zaria	Sickle cell anaemia	Oral	Cup 2x daily	none
32	Dundu	leaves	Single	Pound	Dundu	leaves	Zaria	Teething problems and rashes	For teething problem suckled from mothers breast milk, for rashes drink with nono	The mother should take teaspoonful in cup of water while for rashes drink in nono cup 3x daily	None

S/N	Name of medicine	Physical form	composition	Name of plant used	Parts of plants used	Location found	Uses of medicine	Mode of preparation	Administration	dose	Mentioned Side effects	
33	Rai daure	Whole plant	single	Rai daure	Whole plant for ulcer and leaves for anti-emetic	Zaria	Ulcers and anti-emetic	Boil with potash	Oral	Spoonful in food for ulcer for 1 wk., cup daily for anti-emetic until situation improves	Prolong use can be toxic to the liver	
34	Tatsinya	Fresh leaves and flowers	single	Tatsinya	Leaves and flowers	Zaria	measles	Crush fresh leaves and flowers and macerate in bathing water	oral and Topical	decotion	Drink handful of the macerated water and Bathe with the remaining water	Over dose can cause diarrhoea
35	Hankufa	roots	single	Hankufa	Roots	Zaria	aphrodisiac	decotion	Oral	Drink cupful of the decotion daily	none	
36	Miyan Tsanya	leaves	single	Miyan Tsanya	Leaves	Zaria	Stops bleeding wounds	Crush fresh leaves	topical	Apply liberally	none	
37	Chinida zugu	leaves	single	Chinida zugu	Leaves	Zaria	STD	Boil with potash	Oral	Drink cup daily till puss is cleared	none	
38	Danya	Stem bark	single	Danya	Stem bark	Zaria	pile	Pound into powder	Oral	Spoonful in food	constipation	
39	Asuwa Oyibo	Leaves/flowers	single	Asuwa Oyibo	Leaves and flowers	Osun State	Pile, backache and malaria	Boil in water , use water to make ebba(food)	Oral	Eat the ebba as a meal	none	
40	Blood tonic	Stem bark	single	Ukabba, Idang	Stem bark	Osun State	Blood tonic	boil	Oral	Drink cup of the decotion 2x daily	none	
41	Efiri	leaves	single	Efiri	Leaves	Zaria	pile	Crush to extract juices	Oral	Table spoonful of juice 3x daily	none	
42	Gaude	Roots	single	Gaude	Roots	Zaria	Aphrodisiac	decotion	Oral	Drink cup of the decotion 3x daily	none	
43	Sahbara	leaves	Main Kade	Sahbara	Leaves/roots	Zaria	Dysentery, pile, diarrhea, itching and cancer	Boil with potash for dysentery, diarrhea and pile but pound into powder for cancer	Oral/topical for itching and cancer	Drink cup of the boiled leaves 3x daily for dysentery/for cancer mix powder in fura/koko and drink	none	

44	Tuwon Biri	Root	Single	Decoction	Tuwon Bari	Roots	Katsina	Typhoid fever	Drink	Drink tumbler of the decoction 3x daily	None
45	Uwan Maganguna	Root	Single	Boil in water with potash	Uwan Maganguna	Roots	Zaria/Katsina	Sexually transmitted disease/dandruff hypertension	Drink with pap	Drink cup of the boiled roots 3 x daily	None
46	Gyeza	Powder	Single	Boil, filter, add water or honey	Gyeza	Leaves	Zaria/Katsina		Drink	Drink cup of the boiled powder 3x daily	None
47	Juko	roots	Five different roots	Macerate with condiments for 7 days	Juko	Roots	Zaria	Aphrodisiac	Drink	Drink one litre daily for five days	None
48	Gamji	Stem bark	Single	Grind into powder	Gamji	Stem bark	Zaria	Cancer/asthma	Drink with nono	Drink cup of nono mixed with the stem bark powder 3x daily	None
49	Magarya	Powder	Single	Pound, boil with potash	Magarya	Leaves	Zaria	Menstrual pains	Drink	Drink cup of the boiled powder 3x daily	None
50	Kurna	Powder	Single	Mix powder with milk	Kurna	Leaves	Zaria	Typhoid fever	Drink	2 table spoonful, 3x daily	None
51	Zinzina	powder	Single	infusion	Zinzina	Stem bark	Zaria	Jaundice	Drink	Cup 3x daily	None

S/N	Name	Physical form	Composition	Method of preparation	Plant(s) used	Plant parts	Location	Uses	Administration	Dose	Mentioned Side effects
52	Maganin basir	powder	Single	mix powder with water or nono	Kiriya	Leaves	ABU Botanical garden	Pile	Drink with water or nono	Cup 3x daily	None
53	Rama-Rama	powder	Single	Pound mix with koko,nono or kunu	Rama-rama	Leaves	Zaria	hypertension	Drink	Cup 3x daily	None
54	Hawayen Zaki	powder	Single	Boil with potash	Hawayen Zaki	Stem bark	Zaria	Dankanoma	Drink	2 cups 2x daily	None
55	Aduruku	sticks	Single	Boil stem	Aduruku	Stem	Zaria	High fever	Drink	2cups 2x daily	None
56	Gamji	powder	Single	Boil with potash	Gamji	Stem bark	Zaria	Pile	Drink with water or kunu	Cup 3x daily	None
57	Umbrella	leaves	Umbrella+ Tsamiya	Macerate in water	Umbrella+ Tsamiya	Leaves+ Tsamiya fruits	Zaria	Typhoid	Drink	3cups 2xdaily	None
58	Rawaya	powder	Single	Fry with eggs or macerate	Rawaya	Leaves	Zaria	Yellow fever	Eat/ drink if macerated	Spoonful with one egg/ or cup daily	None
59	Magarya	roots	Single	Macerate	Magarya	Roots	Zaria	Pile	Drink cup 3x daily		None
60	Gurjiya	Stem bark	Single	Macerate	Gurjiya	Stem bark	Zaria	Pile	Drink, bathe and seat in water	Drink cup daily, bathe and seat in water daily	None
61	Cinzaki	Stem bark	Single	Macerate with spices and add brown sugar	Cinzaki	Stem bark	Zaria	Colds	Drink	Drink as required	None

S/N	Name	Physical form	Composition	Method of preparation	Name(s) of plants used	Parts of plants used	location	Uses	Administration	Dose	mentioned side effects
62	Ganyanshayi	leaves	Ganyanshayi and lemon	Decoction	Ganyanshayi	Leaves	ABU Biological Garden	Blood purifier ,energy booster and slimming drink	drink	2cups 2x daily	None
63	Gogamasa	leaves	Single	Pound fresh leaves	Gogamasa	Leaves	ABU B/Garden	Eczema	topical	Rub on affected areas daily	None
64	Malmo	roots	Single	Decoction	Malmo	Roots	Goroba village Zaria	Rheumatism	drink	Cup 3x daily	None
65	Baure	Stem bark	Single	Topical	Baure	Latex	Behind ABU Press, Zaria	Ringworm	topical	Rub 2x daily	None
66	Kade	powder	Single	Decoction	Kade	Stem bark	Zaria	Pile	Drink/ bathe	Cup /bathe3x daily	None
67	Ciwo	Roots	Single	Decoction	Ciwo	Roots	Zaria	Rheumatism	drink	Cup 3x daily	None
68	Shirinya	leaves	Single	Decoction	Shirinya	Leaves	Zaria	Farin jini	drink	2x daily	None
69	Shuwakajang argari	Powder	Single	Powder mixed in nono/tea	Shuwakajang argari	Powdered leaves	Zaria	Stomach ache	drink	3x daily	None
70	Tsamiya		Single	Decoction	Tsamiya	Leaves	Zaria	Rashes	bathe	Bucket, daily	None
71	Sutura	leaves	With kolanut	Decoction chew	Sutura	Leaves	Zaria	Chest pain, umbilical pain, ulcer and ear ache	3 leaves	3x daily	Insomnia
72	Gwandar daji	Roots	Single	Decoction	Gwandar daji	Roots	Zaria	Cancer	drink	Cup 3x daily	None

S/N	IS Name	Physical form	Composition	Plants used	Plant part(s) used	Geographical location plants collected	Method of preparation	Uses	Administration	Dose	Mentioned side effects
73	Uwar Maganguna	Powder	single	Uwar Maganguna	Roots	Zaria	decoction	Pile and colds	drink	Cup 3x daily	None
74	Doddoya	Leaves	single	Doddoya	leaves	Zaria	decoction	Jedi -Jedi and chicken pox	Drink/bathe	Cup / bucket 2x daily	None
75	Runhu Bature	Leaves	single	Runhu Bature	leaves	Zaria	decoction	Typhoid and High fever	drink	Cup 2x daily	None
76	Runhu	Powdered leaves	single	Runhu	Pound leaves and Boil + potash	leaves	Zaria	Stomach ache, hypertension and boils	Oral/ topical for boils in armpits	For stomach ache table spoonful in 700ml H ₂ O take cup 3 x daily. For hypertension table spoonful of powdered sobo +1/2 table spoonful of the boiled H ₂ O in 700ml of H ₂ O then cup 3 x daily. For boils apply liberally	none
77	Baushe	Powder	single	Baushe	Roots for diarrhoea, stem bark for animal liver cirrhosis	Zaria	Spoonful in nono, kunu or water for human diarrhoea	Diarrhoea and liver cirrhosis in animals	Drink, animals lick the ground with potash powder	Cup 3x daily	None
78	Tunfafiya	calabash	single	Tunfafiya	Fruit	Zaria	Use as container	Protection against evil	Drink water from it	Cup 2x daily	None
79	Adduwa	Fruits	single	Adduwa	Fruits	Zaria	peel	indigestion	Lick	enough	None
80	Janfulawa	Leaves	single	Jafulawa	Leaves	Zaria	decoction	Jedi- Jedi and high fever	Drink and bathe	Take Cup of the decoction and take bath using a bucket	None

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81	Idon zakara	Stem bark	single	Idon zakara	Stem bark	Zaria	chew	acceptance	chew	of decoction 2x daily	Table Spoonful 2x daily	None
82	Filaskon Bature	Fresh leaves	single	Filaskon Bature	Fresh leaves	Zaria	decoction	Typhoid fever	drink	Cup 3x daily	None	

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S/N	Name	Physical form	composition	Plants used	Plant parts used	Geographical location	uses	Method of preparation	Administration	Dose	Mentioned side effects
83	Kimbardaji	Seed	single	Kimbardaji	seed	Zaria	Rheumatism	Pound with potash added	Topical	Apply to joints 2x daily	None
84	Bagaruwa	Leaves	single	Bagaruwa	leaves	Zaria	ulcer	Pound into powder	Drink with honey	2tablespoonful,2 x daily	None
85	Marke	Stem bark	single	Marke	Stem bark	Zaria	Cough and fever	decoction with potash	Drink	Cup 3x daily	None
86	Zogala	Roots, leaves & seeds	Single for typhoid. Leaves& seeds for headache	Zogala	Roots/leaves & seeds	Zaria and environs	Roots for typhoid, leaves and seeds for hypertension and headache	Boil roots + potash, Boil leaves eat and eat the leaves then drink the water. Seeds are eaten first thing in the morning	Drink/eat	Cup of the decoction 2x daily, 3 seeds daily	None
87	Nonon kurchiya	Latex	single	Nonon kurchiya	Latex	Zaria	wounds	Cut to get latex	Topical	Apply the latex once to fresh cuts 2x daily	None
88	Tatsanya	Leaves	single	Tatsanya	leaves	Zaria	measles	decoction	Drink the decoction and bathe with it	2x daily	None
89	Soson Danga	Leaves	single	Soson Danga	Leaves	Zaria	Rheumatism	Pound fresh leaves	Topically apply to the joints	2x daily	None
90	Kauci	Leaves	single	Kauci	leaves	Zaria	Cancer	Pound/boil	Drink	Cup 3x daily	None
91	Tuna	Shell	single	Tuna	shell	Zaria	Stomach ache	Boil with potash	Drink	Cup 3x daily	None
92	Kayan Rakumi	Leaves	single	Kayan Rakumi	leaves	Zaria	Pile	Boil with potash	Drink	Cup 3x daily	None

S/N	Name of medicine	Physical form	composition	Method of preparation	Name of plant(s) used	Plant part(s) used	Location	uses	Method of administration	Dose	Side effects
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93	Marga	Roots	Single for hyena. With Tafashiya for aphrodisiac	Boil with potash	Marga +Tafashiya	Roots	Zaria	Hernia	Oral	Tumbler 3x for hernia and cup 3x for aphrodisiac	Too much can damage liver
94	Tafashiya	Roots	Mix with Kananfari	Boil	Tafashiya Kananfari	Roots	Zaria	Typhoid	Oral	Cup 3x daily	none
95	Gayama	Stem bark	single	Boil + potash	Gayama	Stem bark	Zaria	Typhoid, hepatitis	Oral	Cup before meals	none
96	Gawo	Stem bark/ leaves	Gawo, Gyeza	Boil	Gawo	Stem bark/ Gyeza leaves	Zaria/ Kano	Hypertension	Oral	big cup 3x daily to finish gallon in 3 days	None
97	Maganin basir	Stem bark powder	Baure, Dorowa, Chidiya	pound and boil in a gallon of water decoction	Baure, Dorowa, Chidiya	Stem bark	Zaria /Kano	Pile	Oral	Table spoonful in nono or kunu 2x after meals	none
98	Maganin basir misiro	Stem bark	Gamji, Ararrabi, Tsamiya, Dorowa, Yadiya, Wurishi		Gamji, Ararrabi, Tsamiya, Dorowa, Yadiya, Wurishi	Stem bark	Zaria/ Kano	pile	Oral	Cup 3x daily sit in bowls of water 2x for 1 week	none
99	Maganin sanyi	Stem bark/ roots	Tsanya, Tawasa, Gwandar daji, Malmo	Pound and make paste with share butter or butter	Tsanya, Tawasa, Gwandar daji, Malmo	Stem bark/ Roots	Zaria/ Katsina/ Kano	Rheumatism	Topical	2x daily after baths	None
100	Gaigai	Roots	Black/white Gaigai, Gaude, Malmo and Hankufa(7)	Boil + potash in 1 gallon of water	Black/white Gaigai, Gaude, Malmo and Hankufa(7)	Roots	Kano/ Zaria/ Sokoto	Aphrodisiac	Oral	Cup 4x daily	one

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