Important Medicinal Plants in Ethiopia: A Review in Years 2015–2020

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Abstract

Many studies on medicinal plants have been taking place in different parts of Ethiopia and the people use them for the preparation of traditional herbal medicine. The purpose of the current study is to review the assessment of the medicinal plants used in Ethiopia, to compile the components used, the method of preparation, the medical uses, and the compilation of the number of medicinal plants in 2015–2020. This review paper took place in the years 2015 to 2020 from the published papers. Various databases, such as Science Direct, PubMed, and Google Scholar, have been searched. The data were analyzed using frequency, percentages, charts, and numbers using the Microsoft Excel spreadsheet 2010. In Ethiopia, a total of 4,007 medicinal plants were identified from different areas by different authors in the years 2015–2020. But, from this total number of identified medicinal plants, there was a similarity between types of plant species. Therefore, this total result has present similarities in plant species and types found in different areas. In 2015, a total of 1,062 medicinal plants were identified from different areas by different authors. Similarly, 315, 613, 944, 341, 732 medicinal plants were identified by different authors in different study areas in the years 2016, 2017, 2018, 2019, and 2020 respectively. The years 2015 and 2018 were the years many plants of medicinal value were documented. The growth forms of medicinal plants were analyzed from 2015 to 2020 in the different study areas with different authors but with the same year and valued for each year and put the average one. To calculate the 2015 growth form of medicinal plants for example to calculate herbs, add all herbs identified by different authors in the same year, and take the average one. This method applied to all growth forms of medicinal plants each year. In all years (2015–2020) the dominant growth forms were herbs. The highest average of growth form was herb in the year 2020 which is 44.2%. In all years the least growth form was a climber. In all growth forms, the parts used for medicine were identified. Add each medicinal plant’s parts in the same year and then take the average for all years. In 2020 year, the traditional healers mostly used leaves (56.3%) for the preparation of remedy. In general, in all year leaves was dominant for the preparation of remedy. Oral and dermal ways of the route of administration were the most important in medicinal plants to treat directly different ailments. The route of administration was varying in percentage from year to year and also, a place to place according to the potential of traditional healers and type of diseases. But, different study areas and years showed that oral administration was the dominant one. In 2019, most of the prepared remedy was taken orally. Crushing was the most important and more cited in
the preparation of remedy in the year 2015–2020. Also, powdering, boiling, chewing, concoction, grinding, direct and immediate, chopping, squeezing, decoction, boiling/unprocessed use, liquid form, Homogenizing in water, heating, cooking, smoking, and fumigation are common methods of preparation of remedy. In general, this review highlights the situation of Ethiopian traditional medicinal plants associated with their knowledge from years to years. In addition, this review paper plays an important role in the extraction of potential medicinal plants to discover new drugs through detailed researches in the future.

**Keywords:** Ethiopia, Medicinal plants, new drugs

### 1. Introduction

Ethiopia is the sixth major country in tropical Africa in terms of the diversity of flora [1]. The country is endowed with rich flora, having more than 6,500 species of vascular plants out of which an estimated 12% are endemic and many plant species are used as medicinal plants [2, 3]. In Ethiopia, 80% of people depend on traditional medicine for their health care, and more than 95% of traditional medicinal preparations are made from plant origin [4]. Ethiopia is also a home for many languages, cultures and beliefs that have in turn contributed to the high diversity of traditional knowledge and practice of the people, which, among others include the use of medicinal plants [5, 6]. Ethiopian traditional medicines are greatly complex because the country harbors much cultures and endogenous knowledge [7].

Medicinal plants are plants that are used to treat diseases of humans and animals [8]. Traditional healers practice on these plants using their indigenous knowledge and hence, they are called traditional medicines. Primitive peoples in all ages have had some knowledge of medicinal plants derived as the result of trial and error [9]. Medicinal plants were traditionally used for health care and serve as the bases for the emergence of modern medicine. About 6,000 medicinal plants are believed to be used in traditional medicine globally [10–12]. Most of the medicinal plants are directly used from the wild and some from home gardens. However, home gardens played important role in cultivating and retaining medicinal plants beyond other useful plants [13]. Ethnobotanical knowledge as part of living cultural knowledge and practice between communities and the environment is essential for biodiversity conservation [14–16]. Most traditional medical treatments put into performing in Ethiopia rely on an amplification of disease that draw on both the “mystical” and “natural” base of medical circumstance and put together use of a holistic approach to management [17]. The usage of herbal medicine in Ethiopian patients in the treatment of diseases like cancer, liver, neurological and hepatic diseases were reported by some authors [18, 19]. In general plants are very important in Ethiopia to treat various ailments.

The present review was conducted to gather information about the plants used by people of Ethiopia in traditional medicine in the years 2015 to 2020, such as to highlight the description of medicinal plants including local name, the parts used, the preparation methods, traditional uses, and to compile the number of medicinal plants in each year till 2015 to 2020. This is believed to show the importance of traditional knowledge on treating ailments and elucidate the degree of development of this knowledge to marketable business.

### 2. Methods and materials

This review paper took place in the years 2015 to 2020 from the published papers. Various databases, such as Science Direct, PubMed, and Google Scholar,
| Medicinal plants studied by and year | Name of study area | Habit of medicinal plants in percent (%) | Parts utilized in percent (%) | Method of preparation | Principal RA (%) | Total Plants |
|-------------------------------------|--------------------|------------------------------------------|-----------------------------|-----------------------|-----------------|--------------|
|                                    |                    | H  | Sh  | T   | C   | L  | R   | F   | Se  | St  | Ot  |                         | Or  | De  |               |
| [20]                                | Abaya District (Guji Oromia tribes), | 30.3 | 48.8 | 20.9 | —   | 30.2 | 39.5 | 16.3 | —   | 14  | —   | Powder, crushing pounding, chewing, concoction | 60.46 | 23.2 | 43            |
| [21]                                | Abeshige district, Gurage Zone, SNNP | 37.1 | 29.2 | 22.5 | 12  | 41.6 | 23.6 | 7.86 | 5.6  | 3.37| 17.97| Crushing and pounding | 51.7 | 23.6 | 89            |
| [22]                                | Ada’a District, East Shewa Zone, Oromia | 37  | 39  | 17  | 7   | 33.68| 38.34| 6.22 | —   | 3.63| 18.13| Concoction, Powdering, Grinding, Chewing | 49.4 | 38.4 | 131          |
| [23]                                | Adwa District, Tigray | 28  | 36  | 28  | 8   | 52  | 24  | 4   | 8   | —  | 12  | Crushed/grinded or powdered. | 79  | 12  | 25            |
| [24]                                | Yalo Woreda in Afar | 28  | 44  | 21  | 7   | 52.9 | 17  | 3.27 | 3.27 | 23.5| —   | crushing and pounding | 68  | —   | 106           |
| [25]                                | Dire Sheikh Hussein heritage South-eastern Ethiopia | 29  | 33  | 31  | 7   | 36  | 26  | 5   | 10  | 7  | 16  | Crushing, pounding, chewing, powdering, cutting | 59  | 24  | 87            |
| [26]                                | Boricha district Southern Ethiopia | 16.67 | 45.24 | 33.33 | 4.76 | 59.3 | 12.2 | —   | —   | 16.3| 12.2| Crushing and chewing, boiling | 73  | 18  | 42            |
| [27]                                | Bule Hora District, West Guji Zone | 42.86 | 21.42 | 35.71 | —   | 64.28| —   | 14.28| —   | 21.42| 13.28| — | — | — | 70 |          |
| [28]                                | Chilga District, Northwestern Ethiopia | 36  | 30  | 24  | 11  | 45.3 | 44.4 | —   | —   | —  | 10.2| Crushing, grinding, boiled | 50  | 33  | 101           |
| [29]                                | Chiro district, West Hararghe | 36.67 | 31.67 | 26.66 | 5   | 46.96| 24.24| 4.55 | 7.58 | 4.55| 12.03| pounding and grinding, boiled, squeezing | 63.2 | 26.32 | 60           |
| [30]                                | Dale District, Sidama Zone, SNNP | —  | 49  | 51  | —   | 41  | 12  | 12  | —   | —  | 35  | Crushing, chewing | 76  | 9   | 42            |
| [31]                                | Dale Sedi district, Oromia | 29.8 | 40.4 | 29.8 | —   | 36.2 | 21.3 | 14.9 | —   | 14.9| 27.6| Crushing, grinding | 57.5 | 19.2 | 47            |
| [32]                                | Debark district, North Gondar | 36.56 | 33.33 | 19.51 | 10.6 | 40  | 18.57| —   | 12.86| 8.57| 20  | Crushing, pounded | 56.67 | 29.63 | 93           |
| [33]                                | Dega Damot Woreda, Amhara | 31.1 | 35.4 | 36.8 | 6.7 | 25  | 37.5 | 8.125| 8.125| 8.125| 13.6| Chopping, pounding and crushing | 69  | 14.8 | 54            |
| Medicinal plants studied by and year | Name of study area | Habit of medicinal plants in percent (%) | Parts utilized in percent (%) | Method of preparation | Principal RA (%) | Total Medicinal Plants |
|-------------------------------------|-------------------|-----------------------------------------|------------------------------|----------------------|-----------------|------------------------|
|                                     |                   | H | Sh | T | C | L | R | F | Se | St | Ot |                          |                       |                        |
| [34]                                | Dega Damot district, Amhara | 30 | 40 | 25 | 5 | 36.5 | 15.4 | 5.8 | 21.2 | 1.9 | 19.2 | Decoctions, liquid        | 44 | 26.5 | 60 |
| [35]                                | Jeldesa Cluster, Dire Dawa Administration, Eastern Ethiopia | 38.5 | 42.8 | 15 | 3.7 | 34 | 33 | 5 | 9 | — | 19 | Crushing, pounding, concoction, squeeze | 57.7 | 27.1 | 52 |
| [36]                                | Dugda District, Oromia | 38.2 | 32.5 | 22.8 | 3.3 | 41 | 29 | — | 11 | — | 19 | Pounding, crushing and cooking/bolling | 60.13 | 34.64 | 88 |
| [37]                                | Enarj Enawga District, East Gojam, Zone, Amhara | 47.75 | 31.53 | 11.71 | 9.01 | 35.81 | 39.53 | 3.8 | 6.05 | 2.79 | 12.02 | Crushing, boiled, squeezed | 43.72 | 26.98 | 111 |
| [38]                                | Local Communities of Gambella | 12.3 | 37.03 | 32.1 | 18.5 | 27 | 23 | 10 | 10 | 9 | 21 | Squeezing, chewing, boiled, crushing, burning | 61.73 | 18.51 | 81 |
| [39]                                | Ganta Afeshum District, Eastern Zone of Tigray | 39.88 | 33.52 | 21.39 | 2.89 | 38.62 | 17.06 | 9.58 | 11.38 | 2.09 | 21.27 | Direct and immediate/unprocessed use, grinding, boiling, etc. | 24.3 | 22.8 | 173 |
| [40]                                | Gera district, Ethiopia | 35.7 | 28.6 | 23.2 | 8.9 | 75 | 5.4 | 3.6 | 8.9 | — | 7.1 | Crushing, exudation, squeezing, concoction | 41.1 | 26.8 | 63 |
| [41]                                | Gondar town, North Western Ethiopia | 8.9 | 11.8 | 64.7 | — | 40 | 30 | — | 3.3 | — | 26.7 | Powder, crushed, chewed, boiled | 64.3 | 26.2 | 30 |
| [42]                                | Gozamin Wereda, East Gojam Zone | 45 | 31 | 16 | 8 | 41.9 | 17.2 | 4.3 | 14 | 4.6 | 18 | Crushing, squeezing, powdering, juice, etc. | 51.61 | 24.73 | 93 |
| [43]                                | Robe district Bale zone, Oromia | 38 | 33 | 26 | — | 33.3 | 21.4 | — | 19 | — | 26.3 | Crushed, boiled, chewed, powdered | 44.5 | 34.7 | 42 |
| [44]                                | Gubalafo District, Northern Ethiopia | 50.37 | 29.6 | 14.8 | 5.9 | 41.01 | 32.7 | 5.9 | 6.7 | 2.9 | 10.8 | Crush, powder, chew, grind, and squeezed | 61.4 | 35.4 | 135 |
| [45]                                | halaba people, southern Ethiopia | 53.06 | 18.37 | 22.45 | — | 52.92 | 13.46 | — | 25 | 8.62 | Crush, squeezed chewed, pound powder | 68.9 | 28.5 | 58 |
| Medicinal plants studied by and year | Name of study area                              | Habit of medicinal plants in percent (%) | Parts utilized in percent (%) | Method of preparation                                      | Principal RA (%) | Total Medicinal Plants |
|-------------------------------------|------------------------------------------------|------------------------------------------|------------------------------|-----------------------------------------------------------|------------------|------------------------|
| [46]                                | Harari regional State, East Ethiopia            | 42.6 35.2 14.8 5.6 48.15 20.37 9.26 — 7.41 14.81 | Crushing, squeezing, chewing and cooking | 53.7 24.1 | 54 |
| [47]                                | Hawassa Zuria District, Sidama zone             | 34 28 32 6 56 12 15 4 4 9 | Grinding, chewing, boiling, eating, liquid | 74 20 | 105 |
| [48]                                | Horro Gudurru Woreda, Western Ethiopia          | 46.4 28.6 25 — 51.8 19.6 10.7 10.7 — 7.2 | Grinding, crushing, chopping, decoction | 57.1 33.9 | 81 |
| [7]                                 | Jigiga town, Somali region, Ethiopia            | 26 39 35 — 32.7 30.8 3.85 9.6 3.85 19.2 | Homogenizing in water, crushing, decoction, chewing | 55.6 27.8 | 46 |
| [49]                                | Kembatta Tembaro (KT) Zone, Southern Ethiopia   | 54 25 13 — 41 26 3 15 — 15 | Crushing, decoction, chewing, squeezing | 69 22 | 145 |
| [50]                                | Kulte Awulaelo District, Tigray                 | 44 38 12 6 40.98 34.43 2.7 5.8 2.9 13.19 | Crushing, chewing unprocessed, | 25 29.69 | 50 |
| [51]                                | Kunama ethnic group in Northern Ethiopia        | 37 13 43 13 21.7 35.5 8.9 9.5 2.6 21.76 | pounding/crushing, smoking, | 50.43 30.43 | 115 |
| [52]                                | Laelay-Adi-yabo District, Northern Ethiopia     | 29 29 29 10 34 24 2.7 6 13 20.3 | Crushing, grind | 48.65 48.65 | 37 |
| [53]                                | Libo Kemlem District, northwest Ethiopia        | 41.1 38 14.7 6.1 31.2 30.9 7.2 2 1.7 27 | Crushing, grinding, concoction, boiling | 44.9 37.7 | 163 |
| [54]                                | Menz Gera Midir District, North Shewa Zone, Amhara | 43.87 30.32 18.45 6.45 43.9 31 8 3 4 10.1 | Pounding, powdering, squeezing | 47.96 28.57 | 155 |
| [55]                                | Minjar-Shenkora District, North Shewa Zone of Amhara | 38.98 40.67 13.55 6.48 45.7 18.5 13.5 22.3 | liquid forms, exudates, powder, smash | 54.21 41.78 | 118 |
| [56]                                | Meha Woreda, Hadiya Zone, southern Ethiopia     | 43 27 21 9 41 26 33 | Crushing, powdering, Boiling, chewing | 47 31 | 126 |
| Medicinal plants studied by and year | Name of study area | Habit of medicinal plants in percent (%) | Parts utilized in percent (%) | Method of preparation | Principal RA (%) | Total Medicinal Plants |
|-------------------------------------|-------------------|------------------------------------------|-------------------------------|-----------------------|------------------|-----------------------|
|                                     |                   | H  Sh  T  C  L  R  F  Se  St  Ot         |                               |                       |                  |                       |
| [57]                                | Raya Kobo District of Amhara Region | 46.2 31.8 22 — 53.1 21.8 6.45 6.45 9.8 2.4 | Grinding/pounding, Crushing, Boiling, Chewing, Squeezing | 53.7 28.9 | 91 |
| [58]                                | Sayo and Hawa Gelan Districts of Kelem Wollega Zone, Oromia | 15.1 45.5 39.4 — 57.47 17.24 5.45 6.45 — 13.39 | Concoction, squeezing, boiling, smoking, chewing | 55 32 | 66 |
| [59]                                | Seharti Samre District, Southern Tigray | 39 42.2 14.4 4.4 44 16 4 8 3 25 | Crushing, pounding, Chewing, Squeezing | 64.6 35.4 | 90 |
| [60]                                | Sheka Zone of SNNP State, Ethiopia | 53 23.7 12.4 10.9 42 16 6 3 3 30 | Liquid form, chewed. | 47 33 | 266 |
| [61]                                | Boricha District, Sidama Zone, South Region | 30 39 16 15 59 10 — 7 24 | Grinding, Decoction, homogenization, concoction | 97.4 2.4 | 42 |
| [62]                                | Abergelle, Sekota and Lalibela districts of Amhara region | 15.69 19.6 60.13 4.57 32.08 32.08 — 11.32 — 24.52 | Crushing, grinding, squeeze, fumigation | 35.85 33.96 | 53 |
| [63]                                | Tepi Town, Southwest Ethiopia | 33.3 24.24 24.24 15.15 36.36 12.12 — — 3.03 49.49 | Crushing and grinding | 75.75 9.09 | 33 |
| [52]                                | Cheha district | 49 19 29.41 2 65 14 5 10 3 3 | Cooking, smoking, heating and boiling | 69 24 | 102 |

N.B. H = herb, Sh = shrub, T = tree, mpts = medicinal plants, C = climber, L = leaf, R = root, F = fruit, Se = seed, St = stem, Or = oral, Ot = other, De = dermal, RA = Route of administration, SNNP = South nation and nationality of people.

Table 1.
List of medicinal plants studied by and year, study area, habit, parts utilized, mode of preparation in Ethiopia (2015–2020 years).
have been searched. The data were analyzed using frequency, percentages, charts, and numbers using the Microsoft Excel spreadsheet 2010.

3. Medicinal plants in Ethiopia

In Ethiopia many medicinal plants are useful for treatment of different health problems. As indicated in Table 1, (review of recent literature: 2015–2020 years) medicinal plants in Ethiopian pharmacopeia are studied in different parts of the country by different authors. The review was restricted to the years 2015–2020 because the study made so far is bulky. This review showed that the total number of medicinal plants documented varied from year to year. In 2015, a total of 1,062 medicinal plants were identified from different areas by different authors. Similarly, 315, 613, 944, 341, 732 medicinal plants were identified by different authors in different study area in years 2016, 2017, 2018, 2019 and 2020 respectively.

4. Identified medicinal plants in Ethiopian in the years 2015–2020

The pattern of number of identified medicinal plants per year in Ethiopia in the years 2015–2020 was different (Figure 1). In 2015, 1,062 of medicinal plants were identified. When compared to the year 2016, it was greater by 747. Years 2015 and 2018 were the years many plants of medicinal value were documented (Figure 1).

5. Growth forms (habits) of medicinal plants

The growth forms (habits) of medicinal plants was analyzed from 2015 to 2020 in different study area with different authors but with the same year and valued for each year and put the average one. To calculate the 2015 growth form of medicinal plants for example to calculate herbs, add all herbs identified by different authors in the same year and taken the average one. This method applied for all growth form
of medicinal plants to each year (Figure 2). In all years (2015–2020) the dominant growth forms were herbs. The highest average of growth form was herb in year 2020 which is 44.2% (Figure 2). In all years the least growth form was climber (Figure 2).

6. Parts of medicinal plants

In all growth forms, the parts used for medicine were identified. Add each medicinal plants parts in the same year and then taken the average for all years (Figure 3). In 2020 year the traditional healers mostly used leaves (56.3%) for the
preparation of remedy. In general, in all year leaves was the dominant for the preparation of remedy (Figure 3).

7. Route of administrations

Oral and dermal ways of route of administration were the most important in medicinal plants to treat directly different ailments. The route of administration was varying in percentage from year to year and also, place to place according to the potential of traditional healers and type of diseases. But, in different study areas and years showed that oral administration was dominant one (Figure 4). In 2019, most of the prepared remedy was taken orally.

![Route of administration of remedies years 2015-2020.](image)

8. Methods of preparation of medicinal plants

Crushing was the most important and more cited in the preparation of remedy in the year 2015–2020 (Table 2). Also, powdering, boiling, chewing, concoction, grinding, direct and immediate, chopping, squeezing, decoction, boiling/unprocessed use, liquid form, Homogenizing in water, heating, cooking, smoking and fumigation are almost common for many traditional healers were shared methods to preparation of remedy.

9. Conclusion

All the medicinal plants reported in the current review work have been used in traditional medicine for the treatment of different human ailments in Ethiopia. But, the studied plants in the present review need further investigation for detailed extraction of natural products, pharmacological and biological activities as well as a safety control. Therefore, today’s review is a gateway for a new researcher to
| Plant family | Scientific Name         | local name       | Habit | used parts | Medicinal uses         | Methods of preparation                                                                 | References |
|--------------|-------------------------|------------------|-------|------------|------------------------|-----------------------------------------------------------------------------------------|------------|
| Asteraceae   | *Vemonia adoensis* Sch.Bep. ex Walp. | feres zeng       | Herb  | root       | Menstrual disorder     | Root is chewed with honey, then drunk the fluid                                           | [32]       |
|              | *Echinops hispidus* Fresen | Kebericho        | Shrub | Stem/root  | Cough                  | Smoke the nasal cavity of the patient with dried stem or root                            | [64]       |
|              | *Carthamus tinctorius* L  | Suf              | Herb  | Seed       | Cough                  | —                                                                                       | [54]       |
|              | *Tagetes minuta* L        | Gimie            | Herb  | Leaf       | Black leg              | Take the prepared remedy through orally.                                                | [54]       |
|              | *Echinops macrochaetus* Fresen | kosorruu(or) koshele | Herb  | Stem       | Ringworm               | Fresh stem of this plant is chopped and fumigated to affected area.                     | [36]       |
|              | *Helichrysum* sp.         | Nechilo           | Shrub | Leaf       | Impotency              | —                                                                                       | [54]       |
|              | *Artemisia abyssinica* Sch.Bip. | Chikugn          | Herb  | Root/leaf  | Common cold, evil eye, typhus | Nasal for common cold                                                                  | [54]       |
|              | *Carduus leptacanthus* Fresen. | guccino(or Amharic-) | Herb  | stem       | Hemorrhoid             | Crushed dry stem concocted with *Vernonia amygdalina* leaves mixed with water is taken orally | [20]       |
|              | *Vernonia amygdalina* Del. | Girawu           | Shrub | leaf       | Bloting                | Crush and give with water                                                               | [53]       |
|              | *Acmella caulirhizea* Del. | yemider berbrie  | Herb  | leaf       | Tonsillitis            | Smashed and rubbed, take the juice                                                     | [64]       |
|              | *Kleinia odora* (Forssk.) | Wushie           | Herb  | leaf,stem  | heart disease          | —                                                                                       | [46]       |
| Fabaceae     | *Senna singueana* L       | hambaha mbo (tig) key inchet | Shrub | Root       | helmints, abdominal pain | Grind and mix with water, then drinking                                                | [23]       |
|              | *Tephrosia bracteolata* Guill. and Perr. | gerengerie       | Herb  | leaf       | Body lice              | —                                                                                       | [54]       |
|              | *Lupinus albus* L         | gbto             | Herb  | seed       | Hypertension           | The prepared GB to will be eaten                                                       | [54]       |
|              | *Senna septentrialis* (Viv.) H.S. Irwin & Barneby. | hamashaka (sd)  | Herb  | leaf       | Snake bite             | Rubbing                                                                                 | [47]       |
|              | *Crotalaria karaguensis* Taub. | yeayt ater       | Herb  | leaf       | Itchiness              | Crush and powder, then cream with butter                                               | [53]       |
|              | *Pterolobium stellatum* (Forssk.)Brenan | harengeemmaa/ kontir/kentafa | Shrub | Root       | Rhumantic pain         | Root boiled in a cooking dish and fumigating the leg with vapor.                       | [22]       |
| Plant family | Scientific Name | Common Name | Habit | Harvested Part | Medicinal Uses | Preparation Method |References |
|-------------|----------------|-------------|-------|----------------|----------------|-------------------|----------|
| Lamiaceae   | *Clerodendrum trichotomum* | Misir | Shrub | Leaf | evil eye | Crushed fresh and drink the juice | [54] |
|             | *Hocbart*       | Demeqae    | Shrub | Leaf | vaginal bleeding | Crush and Smearing in the vaginal part | [23] |
|             | *Thymus schimperi* | Hochart | Herb | Leaf | lung tuberculosis | — | [54] |
|             | *Salvia schimperi* | Dibreq | Herb | Root | snake bite | Chopping, homogenization with water and drink a cup of the solution | [51] |
|             | *Otostegia integrifolia* | Tunjut | Shrub | Whole plant | evil eye | Crushing homogenization with water and drink a cup of the solution | [54] |
|             | *Salvia schimperi* | Chelgen (Tig) | Herb | Root | — | Rubbing and painting | [28] |
|             | *Nicotiana tabacum* | Tinbaho | Herb | Leaf | — | Rubbing and painting | [55] |

*References:*
[11] Important Medicinal Plants in Ethiopia: A Review in Years 2015–2020
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| Plant family | Scientific Name | local name | Habit | used parts | Medicinal uses | Methods of preparation | References |
|-------------|----------------|------------|-------|------------|----------------|-----------------------|------------|
|             | Solanum anguivi Lam. | zerch enboy | Shrub | Leaf | Mastitis | Dried and crushed leaves mixed with butter | [46] |
| Euphorbiaceae | Lycopersicon esculentum Mill. | Timatim | Herb | Leaf | Spider poison | Leaf chewed and put on the affected area | [33] |
|             | Capsicum annum L. | Karia | Herb | Fruit | Malaria | — | [54] |
|             | Solanum marginatum L. | Geber embouy | Shrub | Leaf | Tapeworm | Take the prepared remedy through orally | [54] |
|             | Solanum nigrum L. | Xunaye(sd)/tkurawut | Herb | Leaf | Snake bite | Fresh leaf immediately after bit chewed and swallowing | [26] |
|             | Withania somnifera (L.) Dunal. | bula(sd)/girawa | Shrub | Root | Pneumonia | Fresh root is crushed and boiled then infusion is filtered and drunk in the morning for human until recovery and for four days for livestock. | [55] |
|             | Euphorbia abysinica J. F. Gmel. T | Kulkual | Tree | Root/leaf | Jaundice | Crush, immerse in water, then drink or bake bread then eat | [54] |
|             | Bridelia macrantha (Hochst.) Brain. | yenebr tiifr | Tree | Bark | Expel placenta | Crush is then given with water | [55] |
|             | Clutia lanceolata Forssk. | Fyelefej | Shrub | Root | Diarrhea | Crush then tie on neck region | [53] |
|             | Euphorbia tirucalli L. | Kinchib | Shrub | Sap | Swelling | Painting | [28] |
|             | Croton macrostachyus Del. | Bisana | Tree | Leaf/root | Evil eye, Jaundice, Eye disease | — | [54] |
|             | Ricinus communis L. | Qobboo (or) Gulo | Shrub | Seed | Impotency | The dried seeds are pounded, mixed with small quantity of latex from Aloe spp. And drunk two coffee cups before bedtime for two days | [23] |
|             | Tragia cinerea (Pax) Gilbert & Radd. Smith | alebelabit | Herb | Root | Kintarot | Fine powder of plant part mixed with butter/honey and drink before sexual intercourse with his partner. | [20] |
|             | Phyllanthus ovalifolius A. Radcliffe-Smith | gurbi adi/qechemo | Shrub | leaf | Scabies | Leaves squeezed by hand and applied on the skin | [24] |
| Plant family | Scientific Name | Local name | Habit | used parts | Medicinal uses | Methods of preparation | References |
|--------------|-----------------|------------|-------|------------|----------------|------------------------|------------|
| Malvaceae    | *Sida ovate* L. | Lumer kope | Shrub | Leaf       | Swelling       | Fresh leaves pounded tied on the swelling. | [54]       |
|              | *Gossypium barbadense* L. | Tit | Shrub | Root       | Snake bite     | Tie on neck or chew, absorb the juice. | [58]       |
|              | *Malva parviflora* Hoper. | Kötch | Shrub | Root/leaf | Wound          | Chew and cream with cotton. | [54]       |
|              | *Kermesocarpus ochra, ex A. Rich.* | Lut | Shrub | Root/leaf | Ev. eye putative | Crush the root and mix with warm water and wash the head. | [48]       |
|              | *Malva verticillata* L. | Lut | Shrub | Root/leaf | Headache       | Crushed, powdered and sniffed. | [47]       |
|              | *Citrus limon* (L.) Burm.f | Betre lomi | Tree | Fruit      | Liver disease  | Leaved boiled in milk are taken orally and take medicine. | [54]       |
|              | *Clausena anisata* (Willd.) Benth. | Limich | Shrub | Root/leaf | Evil eye       | Crushed, powdered and sniffed. | [41]       |
|              | *Citrus aurantium* L. | Bahre lomi | Shrub | Leaf       | Hypertension   | Drink the juice leaf. | [54]       |
|              | *Ruta chalepensis* L. | Tenadam | Herb | Leaf       | Evil eye       | Leaves boiled in milk are taken orally and take medicine. | [45]       |
|              | *Allium sativum* L. | Nech shinkurt | Herb | Bulb       | Evil eye, malaria, virus. Asthma | Crushed, powdered and sniffed. | [58]       |
| Poaceae      | *Cymbopogon martini* L | Tejesar | Herb | Root       | Shotelay       | The grassy leaf is boiled, macerated, cooked, and given to infants orally. (esp. drenching) | [65]       |
|              | *Arundinaria alpina* K.Schum | Qerqeha | Herb | Root       |  | The root of *Arundinaria Alpina* is tied on the neck part of the body. | [55]       |
| Plant family          | Scientific Name                      | local name | Habit | used parts | Medicinal uses | Methods of preparation                                      | References |
|----------------------|--------------------------------------|------------|-------|------------|----------------|-------------------------------------------------------------|------------|
| Amaranthaceae        | *Amaranthus hypochondriacus* L.    | teleti     | Herb  | Root/leaf | wound           | Rubbing the leaf or root and applying for the wounded part | [28]       |
| Acanthaceae          | *Justicia schimperiana* (Hochst. Ex Nees) | garboya    | Shrub | leaf       | bone fracture   | Tie the root parts and tie the damaged part                  | [23]       |
| Acanthaceae          | *Epimedium grandiflorum* (A. Rich.) Wilczek | gerbya     | Shrub | leaf       | Helminthias     | The leaf is pounded, macerated, and drunk                    | [65]       |
| Celastraceae         | *Maytenus arbutifolia* (A. Rich.) Wilczek | abalo      | Shrub | Root       | Kidney problem  | —                                                            | [54]       |
| Asclepiadaceae       | *Calotropis procera* L.             | Tobia/ginda/qinba | Shrub | leaf       | swelling         | Warming the leaf and rubbing the swollen part.               | [28]       |
| Simaroubaceae        | *Simarouba japonica* L.             | kalko      | Shrub | leaf       | wart             | The leaf is crushed with Centaurea cyanus, and the powder is applied on the affected part. | [62]       |
| Cucurbitaceae        | *Cucumis ficiifolius* A. Rich.     | yemdir      | Herb  | fruit      | belly ache, snake bite, insect bite, stomach ache, Gonorrhea, Rabies | —          | [54]       |
| Rubiaceae            | *Coffee arabica* L.                 | warua      | Tree  | fruit      | wound.           | Grind and mix with water drinking                            | [28]       |
| Rhamnaceae           | *Rhamnus prinoides* L.             | willo      | Shrub | leaf       | tonsilitis       | Crush and drink with water                                  | [58]       |
| Oleaceae             | *Oleaceae*                          | marula     | Tree  | leaf       | toothache        | Take with teeth                                              | [58]       |
| Plant family | Scientific Name | local name | Habit | used parts | Medicinal uses | Methods of preparation | References |
|--------------|-----------------|------------|-------|------------|----------------|-----------------------|------------|
| Polygalaceae | *Polygala abyssinica* Fres. | etse libona | Herb | Root | evil eye | Grinding the roots of *Polygala abyssinica*, *Carissa spinarum*, *Phytolacca dodecandra*, *Capparis tomentosa*, *Securidaca longepedunculata*, *Boscia angustifolia*, *Ruta halepensis*, *Sida schimperiana*, and *Croton macrostachyus*, then inhaling; additionally bandage | [28] |
| Convolvulaceae | *Dichondra repens* J.R.&G. Forst. | afer kocher | Herb | leaf | febrile illness | Rub, squeeze, then cream except the heart | [53] |
| Boraginaceae | *Cordia africana* Lam. | wanza | Tree | leaf | eye problem | Burn, then insert ash with butter | [53] |
| Capparidaceae | *Capparis cartilaginea* Decne | qelemberur | Tree | fruit | gastritis | Fruit coat is crushed and mixed with ½ glass water and 3 spoon sugar and taken orally | [62] |
| | | | | Root | Ascaris | Dried roots crushed and boiled and consumed empty stomach | |
| | | | | leaf | diarrhea | Fresh leaves crushed and mixed with water and sugar is added and consumed | |
| Loganiaceae | *Buddleja polystachya* Fresen. | anfar | Shrub | shoot | tonsillitis | Tie and cream concoction | [44] |
| Cupressaceae | *Juniperus procera* Hochst ex. Engl. | Yehebesha tid | Tree | shoot | (painful swelling) | The shoot is pounded, decocted, and drunk | [65] |
| | | | | fruit | urine retention | Boil with TEJ then drink | [53] |
| Myrtaceae | *Eucalyptus globulus* (Labill.) | nechbahirzaf | Tree | leaf | Nasal influenza | Chopped, boiled and inhale the vapor | [55] |
| Rosaceae | *Rosa abyssinica* L | kega | Shrub | fruit | hypertension | Powdered, mixed with water and drunk | [53] |
| anunculaceae | *Clematis hirsuta* Perr. | yazohareg | climber | Leaf/stem | Swellings/ Wart, Eczema | Powdered and tied on affected part | [54] |
| Urticaceae | *Urera Philodendron* (A. Rich.) Wedd. | lankusso | Shrub | leaf | retained placenta | Chopped Leaves and mixed with water | [46] |
| Plant family | Scientific Name | local name | Habit | used parts | Medicinal uses | Methods of preparation | References |
|-------------|----------------|------------|-------|------------|----------------|------------------------|------------|
| Ranunculaceae | Thalictrum rhynchocarpum | sire-bizu | Herb | Root | scrotum swelling | Crush and drink with Tella | [53] |
| Apocynaceae | Carissa spiram L | agam | Shrub | apex | insect poison | For any poisoning by insects or animal bite, seven apexes from seven different places are collected and crushed. | [33] |
| Sapindaceae | Dodonea angustifolia L | kitkita | Shrub | shoot apex | chife | The apex is charred on an open fire and the powder is mixed with butter and applied on the affected area. | [33] |
| Ebenaceae | Euclideanornor Hiern. | Dedho/kuliew (tig) | Shrub | Root | scorpion bite | Roots are chewed to relieve pain | [59] |
| Meliacae | Ekebergia capensis Sparm | Lol/sembo/Olonchoo | Tree | bark | weight loss in children | — | [30] |
| Plantaginaceae | Plantago lanceolata L | gorteb | Herb | leaf | wound & bleeding | Crush leaf powder, then cream | [53] |
| Phytolacaceae | Phytolacca dodecandra L Herit | Endod/shebti | Shrub | Root | rabies | The dried root of the plant is powdered and mixed with local alcohol and a cup of solution drunk daily for twelve days. Vomiting is its side effect and, therefore, restricted to children and pregnant women. | [30] |
| leaf | gonorrhea | Leaves of *P. dodecandra* and roots of *C. Macroptachys* are ground, powdered mixed with water and solution drunk with one to two cups of coffee. | |
| leaf | jaundice | Leaves are crushed, squeezed and one cup of juice taken daily for 21 days | |
| Brassicaceae | Lepidium sativum L | Feto/shenfa | Herb | seed | Amoebiasis, diarrhea | Seeds are ground into powder, mixed with honey and then taken for three day. | [54] |
| Asparagaceae | Asparagus africanus L | yesiet kest | Shrub | aboveground | swelling | Above ground is crushed and homogenized in water for washing the swelling. | [66] |
| Caricaceae | Carica papaya L | Papaye/papaayee | Shrub | seed | diarrhea | Seeds ground and boiled with coffee and taken with hone | [24] |
| Plant family | Scientific Name | local name | Habit | used parts | Medicinal uses | Methods of preparation | References |
|--------------|----------------|------------|-------|------------|----------------|------------------------|------------|
| Vitaceae     | *Cyphostemma adenocaula* (A.Rich.) | asserkush | climber | Root | rabies | Root boiled with milk, filtered and filtrate taken in empty stomach | [41] |
| Crassulaceae | *Kalancheo petitiana* A. Rich. | endahula | Herb | Root | ascaris | For ascaris, the root is cut with a knife of horn and chopped on unmovable stone, and mixed with water, it is squeezed between palms, applied in the left nose, then moved the stomach | [33] |
| Dipsacaceae  | *Dipsacus Pinnatifidus* Steud. ex A. Rich. | Kelem/galam | Herb | leaf | rabies | Pound and give with water | [53] |
| Myrsinaceae  | *Embelia schimperi* Vatke | enkoko | Shrub | fruit | Tape worm | Row eaten; crushed, is drunk mixed with ‘tela difdī’ | [54] |
| Verbenaceae  | *Lippia adoensis* Hochst. exWalp | Koseret/kusaye | Shrub | leaves | fibril illness | The leaves squeezed and the filter is given through the nose and drink | [41] |
| Plumbaginaceae | *Plumbago zeylanica* L. | Amera | Herb | Root/leaf | Wound | The crushed form of its root and leaf of *Dodonaea angustifolia*, with latex of *Calotropis procera* are mixed together then creamed on the wound | [44] |
| Melianthaceae | *Bersama abyssinica* Fresen | azamir | Shrub | Leaf | Ascaris/Hypertension | The twig part of the leaf is crushed and powdered then boiled with tea and drunk | S [54] |
| Aloaceae     | *Aloe pulcherrima* Tod. | eret | Herb | Root | Impotency | Crush and powder, then cream with butter | [53] |
| Linaceae     | *Linum usitatissimum* L | telba | Herb | seed | Gastric | Pound, mix with honey, then drink | [54] |
| Anacardiaceae | *Rhus vulgaris* Oliv | Embis/yeregna qolo | Tree | Root | Evil eye | — | [54] |

| Tiliaceae     | *Rewia ferruginea* Hochst. ex A. Rich. | kenquata | Shrub | bark | Expel placenta | Pilled the insider part and chopped emilizified then given to cattle, goat and sheep | [53] |

N.B.Tig = Tigrigna, Sd = Sidamgna, Or = Oromigna.

Table 2.
List of most common medicinal plants used in Ethiopia with their local name, scientific name, family, parts utilized method of preparation, ailment treated and route of administration.
discover new drugs and screening chemicals resulting from these plants for against different health problems.

Conflict of interest

The authors declare that there is no any conflict of interests.

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