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Inventorying Medicinal plants in Urban Homegardens of Raipur, Chhattisgarh

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ABSTRACT

A Survey was conducted in 100 homegardens in urban area of Raipur, Chhattisgarh for inventorying medicinal plants. Homegardens are man managed ecosystem of varying size start from 100 sq feet to 10000 sq feet recorded during the present study. Majority of the plants grown by the homegarden owner are cultivated plants, however some of them are exotic and endemic plants. These homegardens are manmade system, hence, subsidiary influx of the water and minerals was observed. Homegardens are significant means of ex-situ conservation and a repository of many of the rare medicinal and endangered plants. In present investigation inventorying of Homegardens was done in reference of medicinal plants grown and their importance as a medicine in treatment of various ailments. Present study recorded 168 medicinal plants in survey of 100 homegardens of Raipur, Chhattisgarh. Out of 168 plants maximum plants (127) belonged to the families of class dicotyledonae, while, 38 plants belonged to the families of class monocotyledonae, only 01 plant belonged to the group of Pteridophyta and 2 belonged to the Gymnosperm. Maximum number of plants 13 each belonged to the family Fabaceae and Euphorbiaceae, while minimum number of plant (01) belonged to the 44 families of class Di and Monocotyledonae. Medicinal plants growing in the homegarden were consist of medicinal value to treat ailments like Diabetes, Rheumatism, Bronchitis, Jaundice, Menstrual problems, diarrhoea, Epilepsy, Hypertension, Cancer, Hepatitis, Leprosy, Gonorrhoea, Tuberculosis, Influenza, Leucorrhoea, Syphilis, Cholera, Malaria etc. The plant part used as medicine was found to be root, rhizome, stem, bark, leaf, fruit and seed however, the largely used part of the plant was noted as leaf (84) used as medicine. In this way homegardens are proved to be an effective means of medicinal plants conservation and this hobby of human beings can be used as protection and conservation of many of the rare plants.

Keywords: Inventorying, Homegardens, Ex situ conservation, Medicinal plants.

1. Introduction

Homegardens are also known as backyard garden, dooryard garden and house garden characterised by highly diverse cultivated plants^[1]. An urban homegarden, a multispecies production system on the area of land around the house to meet different physical, social and economic needs and functions, is important land use activity for individual household. A homegarden is an ensemble of deliberately chosen species of plants of human utility combined so as to mimic a natural climax system. It enables the essential ecological processes viz. Regeneration and conservation of soil, and nutrient and water cycling. Urban homegardens are essentially man made and reflect the wisdom of culture and ecological knowledge that have evolved over the years. Such traditional ecological knowledge systems are based on strong socio-culture and traditional beliefs, confounded by the economic status of the people. Structure of homegardens varies from place to place depending upon the socioeconomic and ecological conditions^[2]. Although its functions are similar throughout the world, their structure and size vary considerably^[3]. Over the past few decades homegarden research has emphasized the description and inventorying of the diversity and multiple uses of plant species^[1]. Homegarden owner cultivate plants of multiple use. Majority of the plants in urban homegardens are ornamental even though many medicinal, exotic, endemic and endangered plants are also cultivated. One reason for the increasing interest in homegardens is the global decline of cultivated plants^[1].

In recent times, because of biodiversity conservation, ecological and economic functions homegardens have been receiving increasing attentions from scientists and still it is under research, however researches on homegardens of India are very few^[4]. In 1993, the Government of India estimated that between 60-80% of India's population rely on medicinal plants for health care. Many of the medicinal plants are in state of threat because of over exploitation. In such a state conservation of these medicinal plants for mankind is a challenging

task and urban homegardens may become a useful repository of valuable medicinal plants, therefore, this study aims at analyzing plant species with medicinal value in these homegardens.

2. Materials and Methods

Present investigations have been made in Raipur city of Chhattisgarh state, India. Inventorying the medicinal plants growing in the homegardens, 100 homegardens of varying size were selected. 20 homegardens each were selected in the north, south, east and west direction and rest of the 20 homegardens were selected in the centre of the city. The selected homegardens were categorised in to four groups viz. <100 sq.ft., 101-1000 sq.ft., 1001-5000 sq.ft. and 5001-10000sq.ft..Homegardens were personally visited to observe the overall condition. Photograph of individual plant was taken during the survey and for uncommon plants herbarium was prepared by following the method of Bridson and Foreman ^{15, 61}. The identification of plant was done with the help of standard published literature viz. Flora of Hooker ^{17, 8, 9, 10, 11, 12, 13, 141} were consulted for the identification of plants. Medicinal plants and their use values were recorded during the field visits by interviewing homegarden owners and by on the spot observations. The collected information was later confirmed with the published literature ^{115, 12, 16, and 171} and documentation was done. The collected information was tabulated as Botanical name of the plant, Vernacular name, Family, plant part used as medicine and medicinal value of the plant.

3. Results

In present investigation, inventorying of Homegardens was done in reference of medicinal plants grown and their importance as a medicine in treatment of various ailments. Study recorded 168 medicinal plants growing in the 100 urban homegardens of Raipur, Chhattisgarh. Out of 168 medicinal plants maximum plants (127) belonged to the families of class dicotyledonae while, 38 plants belonged to the families of class monocotyledonae, only 01 plant found to belong Pteridophyta and 2 belonged to the Gymnosperm. Maximum number of plants 13 each belonged to the family Fabaceae and Euphorbiaceae, while minimum number of plant (01) each belonged to the 44 families of Di and Monocotyledonae. Some of the important Medicinal plants recorded growing in the homegarden consist of medicinal value and used to treat ailments like Diabetes (16) plants, Rheumatism (20) plants, Bronchitis (11) plants, Jaundice (05) plants, Menstrual problems (06) plants, diarrhoea (15) plants, Epilepsy (04) plants, Hypertension (04) plants, Cancer (19) plants, Hepatitis (02) plants, Leprosy (06) plants, Gonorrhoea (07) plants, Tuberculosis (01) plants, Influenza (01) plants, Leucorrhoea (01) plants, Syphilis (05) plants, Cholera (01)plants, Malaria (04) plants, sthma(29)plants etc. The plant part known to be used as medicine was found to be root, rhizome, stem, bulb, bulbils, bark, leaf, fruit and seed however, the largely used part of the plant was noted as leaf (84 plants) and least used plant part bulbils of (1) plant used as medicine. (Table-1)

Table 1: Plants of medicinal value recorded in hundred homegardens of Raipur, Chhattisgarh, investigated during 2010-2011.

| S.N. | Botanical Name of the Plant | Vernacular/ Local Name | Family | Plant parts used | Medicinal value used in treatment of ailments |
|------|--------------------------------------|------------------------|---------------|---------------------------|--|
| 1 | <i>Acacia nilotica</i> (L.)Del. | Babool | Fabaceae | Stem, Leaf | Scurvy, Pneumonia, Diarrhoea. |
| 2 | <i>Acalypha wilkesiana</i> L. | Copper leaf | Euphorbiaceae | Leaf | Skin diseases. |
| 3 | <i>Achras sapota</i> Linn. | Chiku | Sapotaceae | Fruit, Bark, Seed, Leaf. | Anti-diabetic, anti-oxidant, Antimicrobial |
| 4 | <i>Acorus calamus</i> L. | Butch | Acoraceae | Leaf, Stem, Rhizome | Sedative, Laxative, Carminative, Diuretic. |
| 5 | <i>Adhatoda vasica</i> Nees. | Adusa | Acanthaceae | Leaf, Bark, Flower | Rheumatism, cough [as expectorant]. |
| 6 | <i>Aegle marmelos</i> (L.) Correa. | Bel | Rutaceae | Leaf, Fruit | Dysentery, diarrhoea and fever. |
| 7 | <i>Agave americana</i> | Century plant | Agavaceae | Sap(Leaf) | Ulcer, Bronchitis, Arthritis, menstrual problems. |
| 8 | <i>Achras sapota</i> L. | Pilaghanti | Apocynaceae | Leaf, Flower | In Liver tumours, Jaundice, Malaria, Anticancer |
| 9 | <i>Allium cepa</i> L. | Pyaz | Liliaceae | Bulb | Cough (as expectorant) and dysentery. |
| 10 | <i>Allium sativum</i> L. | Lahsun | Liliaceae | Bulb | Bronchitis and ear ache (as ear drop). |
| 11 | <i>Allium wallichii</i> Kunth | Jangli lahsun | Alliaceae | Bulb | To reduce blood cholesterol, Tonic to the digestive system. |
| 12 | <i>Aloe vera</i> Mill. | Ghee kuwar | Liliaceae | Leaf | Stomach-ache, headache, constipation. Sexual disorder |
| 13 | <i>Alstonia scholaris</i> (L.)R.Br. | Saptparni | Apocynaceae | Bark, Latex | Malaria, Toothache, Rheumatism, & Snake bite |
| 14 | <i>Anacyclus pyrethrum</i> (L.) Link | Akarkra | Asteraceae | Leaf, Seed, Root | Aphrodisiac, Tonsillitis, Chronic rhinitis Impotency, Tonic. |
| 15 | <i>Annona squamosa</i> Linn. | Seetaphal | Annonaceae | Leaf, Fruits, Seeds, Root | Constipation, Anaemia, Malignancy, Purgative(root) |

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|----|---|--------------------|----------------|--------------------------------------|--|
| 16 | <i>Asparagus racemosus</i> Willd. | Satavar | Liliaceae | Root | Lactation (for milk secretion). |
| 17 | <i>Averrhoa carambola</i> Linn. | Kamaras | Oxalidaceae | Leaf, Fruits | Skin diseases, Worms. Diarrhoea, Haemorrhoids |
| 18 | <i>Azadirachta indica</i> A. Juss. | Neem | Meliaceae | Whole plant | Skin diseases, and used as antiseptic, germicidal. |
| 19 | <i>Bacopa monnieri</i> (L.)Pennell. | Brahmi | Plantaginaceae | Leaf | Epilepsy, Asthma, Ulcers, Tumours, Leprosy, Anaemia. |
| 20 | <i>Bambusa bambos</i> Druce (L.)Voss | Baans | Poaceae | Leaf, Shoot | Bronchial asthma, Snake bite, Diarrhoea, Indigestion. |
| 21 | <i>Barleria priontis</i> L. | Kesaria | Acanthaceae | plant ash(stem) | Toothache and gums (for strengthening). |
| 22 | <i>Basella rubra</i> (L.) Roxb. | Poi bhaji | Chenopodiaceae | Leaf | Fever, burns, and used as tonic. |
| 23 | <i>Bassia scoparia</i> (L.)A.J.Scott | Kochia | Amaranthaceae | Seeds | Hypertension, Obesity, Atherosclerosis. |
| 24 | <i>Bauhinia tomentosa</i> Linn. | Yellow bell orchid | Fabaceae | Whole plant | Dysentery, Diarrhoea, Abdominal trouble, Astringent. |
| 25 | <i>Bauhinia variegata</i> L. | Kachanar | Fabaceae | Bark, Root | Headache, vaginal discharge, and used as tonic. |
| 26 | <i>Bixa orellana</i> L. | Sindur | Bixaceae | Seed | For milk secretion and to prevent mosquito bites. |
| 27 | <i>Bombax ceiba</i> L. | Semal | Malvaceae | Leaf, Prickles | To cure hematuria and also used in pimples |
| 28 | <i>Brassica campestris</i> L.Var.Sarson, Prain. | Sarso | Brassicaceae | Seed | For body massage, in chest pain and Rheumatism. |
| 29 | <i>Bryophyllum pinnatum</i> (Lam.)Oken | Patharchata | Crassulaceae | Leaf | Jaundice, Anticancer, Antioxidant, Diabetes, Diarrhoea, Asthma |
| 30 | <i>Butea monosperma</i> Lam. | Palas,Farsa | Fabaceae | Seed | To kill intestinal worms & as Oral contraceptive. |
| 31 | <i>Calotropis gigantea</i> Br. | Aok | Asclepidaceae | Leaf | Leucoderma, leprosy, paralysis and painful joints. |
| 32 | <i>Carica papaya</i> L. | Papita | Caricaceae | Fruit | Stomach-ache, to reduce obesity and used as digestive. |
| 33 | <i>Carissa carandas</i> Linn. | Karaunda | Apocynaceae | Whole plant parts | Anaemia, Intestinal worms, Analgesic, & Cardiotonic. |
| 34 | <i>Caryota urens</i> L. | Sulphi | Arecaceae | Phloem sap, Root bark, Cabbage, Seed | In Rheumatic swellings, Gastric ulcers, Snake bite, For Energy. |
| 35 | <i>Cassia fistula</i> L. | Amaltas | Fabaceae | Leaf ,Fruit | Used as laxative in delivery, to cure ring worm and in Asthma. |
| 36 | <i>Cassia tora</i> Linn. | Chakoda | Caesalpinaceae | Leaf, Seeds | Skin diseases, Constipation, Cough, Hepatitis, Haemorrhoids |
| 37 | <i>Catharanthus roseus</i> (L.)G. Don. | Sadabahar | Apocynaceae | Flower | To cure cancer and diabetic. |
| 38 | <i>Centella asiatica</i> (L.)Urban | Brahmi booti | Apiaceae | Aerial part | Treatment of wound, Duodenal ulcer. |
| 39 | <i>Cinnamomum camphora</i> (L.) J.Pres. | Camphore tree | Lauraceae | Wood oil | Analgesic, Anti-spasmodic, Diuretic, Stimulant, Arthritis. |
| 40 | <i>Cinnamomum tamala</i> (Butch.-Ham.)T.Nees | Tejpat | Lauraceae | Leaf, Bark | Antioxidant, Anti diabetic, Asthma & Rheumatism. |
| 41 | <i>Cinnamomum zeylanicum</i> Blume. | Dalchini | Lauraceae | Leaf and Bark | In Rheumatism, Reduce cholesterol and sugar level. |
| 42 | <i>Cissus quadrangularis</i> (L.)Wall. | Hadjod | Vitaceae | Rhizome, Leaf | Osteoporosis and Asthma. |
| 43 | <i>Citrus aurantifolia</i> (Christm) Swingle. | Kagji neebu | Rutaceae | Fruit | Indigestion. |
| 44 | <i>Citrus reticulata</i> | Santra | Rutaceae | Fruit, Peel, Oil | To treat abdominal distension, As Tranquilizer, Sedative, In stress, In insomnia |

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|----|--|-------------------|----------------|-------------------------|--|
| 45 | <i>Citrus sinensis</i> | Mousambi | Rutaceae | Fruit juice, peel | Antioxidant, As source of Vitamin C, Nutritive. |
| 46 | <i>Clitoria ternatea</i> L. | Aparajita | Fabaceae | Leaf | Skin eruptions. |
| 47 | <i>Cocos nucifera</i> L. | Nariyal | Arecaceae | Fruit | Anticancer, In dehydration, For energy, Food supplements. |
| 48 | <i>Coffea arabica</i> L. | Coffee | Rubiaceae | Beans | Asthma, Headache/Migraine, Nerves stimulant, Diabetes, cancer and Depression. |
| 49 | <i>Colocasia esculenta</i> (Linn.)Schott. | Kachalu, kochai | Araceae | Leaf, Corms | In constipation, haemorrhoids, general weakness. |
| 50 | <i>Commiphora wightii</i> (Arn.)Bhandari | Mahayograj guggul | Burseraceae | Resin from Bark | Decrease cholesterol synthesis ,Rejuvenator, Piles, in Arthritis |
| 51 | <i>Convolvulus pluricaulis</i> Choisy | Shankhpuspi | Convolvulaceae | Entire plant | In Epilepsy, Stress, Depression, Sleeping disorders, Increases memory, Hypothyroidism |
| 52 | <i>Cordia dichotoma</i> G.Forst. | Bohar bhaji | Boraginaceae | Leaf, Fruit, Seed, Bark | Immunomodulator, Ant diabetic, Anthelminitic |
| 53 | <i>Coriandrum sativum</i> L. | Dhania | Apiaceae | Seed | Reregulate menstrual cycle and foul breath. |
| 54 | <i>Costus igneus</i> N.E.Br. | Insulin plant | Costaceae | Leaf | Diabetes, Asthma, Intestinal worms. |
| 55 | <i>Costus speciosus</i> (Koen ex.Retz.)Sm. | Keu kand | Costaceae | Rhizome | In Diabetes, Asthma, Bronchitis, Cancer, Anemia, Leprosy, Skin diseases, Constipation, As tonic. |
| 56 | <i>Crinum latifolium</i> Linn. | Sudarshan | Liliaceae | Underground bulb | Cough, oedema, Arthritis, Callosity, Hemorrhoids. |
| 57 | <i>Cucumis sativus</i> L. | Khira | Cucurbitaceae | Seed, Fruit | As diuretic and in eczema. |
| 58 | <i>Curcuma amada</i> Roxb. | Amahaldi | Zingiberaceae | Rhizome | Stomach-ache and sprains. |
| 59 | <i>Curcuma angustifolia</i> Roxb. | Tikhur | Zingiberaceae | Rhizome | Peptic ulcer, Dysentery, Diarrhea, Colitis, Bronchitis. |
| 60 | <i>Curcuma caesia</i> Roxb. | Kali haldi | Zingiberaceae | Rhizome | Pneumonia, Asthma, Leucoderma, Epilepsy Cancer, Menstrual disorder. |
| 61 | <i>Curcuma longa</i> L. | Haldi | Zingiberaceae | Rhizome | Cough and cold, stomach-ache, impurities of blood. |
| 62 | <i>Cymbopogon citratus</i> Spreng. | Lemon grass | Poaceae | Leaf | In Digestion, Spasm, Muscle cramps, Rheumatism, Nausea. |
| 63 | <i>Cynodon dactylon</i> Pers. | Doob grass | Poaceae | Grass | Fever, Ulcer, Stomach infection, Anti-viral |
| 64 | <i>Cyperus scariosus</i> (R.Br.) | Nagarmotha | Cyperaceae | Root, Leaf. | Analgesic, Menstrual irregularities, Liver and kidney disorder. |
| 65 | <i>Dalbergia sissoo</i> Roxb. | Shisham | Fabaceae | Leaf, Stem | In Gonorrhoea and for regulation of menstrual cycle. |
| 66 | <i>Datura stramonium</i> L. | Dhatura | Solanaceae | Leaf | Spasm, Asthma and used as narcotic. |
| 67 | <i>Dendrocalamus strictus</i> Roxb. | Bans | Poaceae | Leaf ash | Used as astringent tonic. |
| 68 | <i>Dioscorea hispida</i> Dennst. | Dong kanda | Dioscoreaceae | Bulbils | Male infertility, and as tonic. |
| 69 | <i>Dracaena sp.</i> vand. Ex L. | Dracaena | Agavaceae | Stem | Skin disease, snake bite, Physical fitness. |
| 70 | <i>Eichornia crassipes</i> (Mart.) Solms-Laub. | Jalkumbhi | Pontederiaceae | Whole plant | In Swelling, Goiter, Burning sensation, Hemorrhage. |
| 71 | <i>Elaeocarpus ganitrus</i> Roxb. | Rudraksha | Elaeocarpaceae | Leaf, Seeds | Mental disorder, Epilepsy, Asthma, Hypertension |
| 72 | <i>Elettaria cardamomum</i> Maton. | Elayachi | Zingiberaceae | Fruit | Stimulate appetite, Relives gas, Gonorrhoea, Nephritis, Cystitis. |
| 73 | <i>Embelia ribes</i> Burm, f. | Vayvidanga | Myrsinaceae | Root, Leaf, Fruit | Cough, Skin diseases, Constipation, Asthma, Migraine |
| 74 | <i>Emblica officinalis</i> Gaertn. | Aonla | Euphorbiaceae | Fruit | Tuberculosis, dysentery, cough, and measles. |
| 75 | <i>Eucalyptus citriodora</i> | Nilgiri | Myrtaceae | Leaf | Influenza, rheumatism. |

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| 76 | <i>Euphorbia hirta</i> L. | Dudhi | Euphorbiaceae | Plant juice/Whole plant | Diarrhoea, improve lactation, In Asthma, Skin diseases, Cough |
| 77 | <i>Euphorbia pulcherrima</i> Willd.ex Klotzsch | Poinsettia | Euphorbiaceae | Leaf, Latex, Flower | As Antipyretic, In Coetaneous problems, As Cathartic |
| 78 | <i>Euphorbia royleana</i> | Siyuri | Euphorbiaceae | Latex | Antipyretic, Analgesic, Purgative, Emetic. |
| 79 | <i>Euphorbia tirucalli</i> L. | Pencil tree | Euphorbiaceae | Whole plant | Cancer, Asthma, Neuralgia, Rheumatism, & Toothache |
| 80 | <i>Euphorbia tithymaloides</i> L. | Devil's back bone | Euphorbiaceae | Root, Latex | Diabetes mellitus, Asthma, Laryngitis, Mouth ulcers, Venereal disease, cancer |
| 81 | <i>Ficus benghalensis</i> L. | Bargad | Moraceae | Aerial root | Syphilis, dysentery, ulcer and leprosy. |
| 82 | <i>Ficus carica</i> L. | Anjir | Moraceae | Fruit, Latex, Root | Anti-oxidant, Leucorrhoea, Asthma, Ulcer. blood pressure . |
| 83 | <i>Ficus religiosa</i> Linn. | Peepal | Moraceae | Leaf, bark | Asthma |
| 84 | <i>Galphimia glauca</i> Cav. | Glauca | Malpighiaceae | Whole plant | In Hay fever, Asthma, Mental disorder, Allergic Rhinitis. |
| 85 | <i>Gliricidia sepium</i> (Jacq)Kunth. | Kanik konna | Fabaceae | Leaf | Anti-histaminic, Antipyretic, Expectorant, Diuretic |
| 86 | <i>Glycyrrhiza glabra</i> L. | Mulethi | Fabaceae | Root, stem | Diuretic, Expectorant ,Cough ,In sore throat |
| 87 | <i>Grewia asiatica</i> L. | Phalsa | Malvaceae | Fruit, Root bark | Astringent, Stomachic, Fever, Diarrhoea, Rheumatism. |
| 88 | <i>Haworthia limifolia</i> | Zebra poda | Xanthorrhoeaceae | Whole plant | Blood purifiers, In cough, Skin rashes, Sun burns. |
| 89 | <i>Hedychium coronarium</i> J.Koenig. | Gulbakawali | Zingiberaceae | Rhizome | Diarrhoea, Inflammation, Arthritis, Bronchitis, Asthma, Eye tonic (Ark). |
| 90 | <i>Helianthus annuus</i> L. | Surajmukhi | Asteraceae | Leaf, Seed, Root | Antioxidant, Asthma, Osteoarthritis, arthritis, cancer |
| 91 | <i>Hibiscus rosa-sinensis</i> L. | Gudahal | Malvaceae | Flower | Used to check excessive menstruation and in blackening the hairs. |
| 92 | <i>Hordeum vulgare</i> L. | Barley | Poaceae | Leaf, Seeds | Anti-oxidant, Nutritive, cancer, diarrhoea, Cough, Bronchitis |
| 93 | <i>Iris domestica</i> | Leopard lily | Iridaceae | Rhizome | Cancer, Throat trouble, Asthma, Gonorrhoea, Malaria. |
| 94 | <i>Jasminum angustifolium</i> Willd. | Jasmin | Oleraceae | Root, Leaf | In Skin diseases, Ulcer, Eye problem, Stomatitis |
| 95 | <i>Jasminum auriculatum</i> Vahl. | Juhi | Oleaceae | Roots, Leaf | In burning sensation, Stomatitis, Renal calculi, skin diseases. |
| 96 | <i>Jatropha curcas</i> L. | Ratanjot | Euphorbiaceae | Leaf, Seed oil | As purgative and for skin diseases. |
| 97 | <i>Juniperus chinensis</i> L. | Juniper | Cupressaceae | Stem, Fruit, Leaf, Root | Anti-tumour, Anti-bacterial, Antiplatelet, obesity, cancer` |
| 98 | <i>Lagerstroemia parviflora</i> Roxb. | Bhatsivana | Lythraceae | Leaf | As purgative and hydragogue |
| 99 | <i>Lantana camara</i> L. | Aripple | Verbenaceae | Leaf | In snake bite and in intestinal worm. |
| 100 | <i>Lawsonia inermis</i> Lam | Menhadi | Lythraceae | Leaf | Skin diseases, in burns as astringent. |
| 101 | <i>Lagerstroemia indica</i> (L.)Pers. | Saoni | Lythraceae | Whole plant | Narcotic (Seed), Purgative, Febrifuge, Astringent. |
| 102 | <i>Limonia acidissima</i> L. | Kaitha | Rutaceae | Whole plant | Anti-oxidant, In tumours, Asthma, Hepatitis. |
| 103 | <i>Manihot esculenta</i> Crantz | Bitter cassava | Euphorbiaceae | Root | Treatment of Bladder & Prostate cancer. |
| 104 | <i>Maranta arundinacea</i> L. | Carrow root | Marantaceae | Root | Culinary, Diarrhoea, Nutrition. |
| 105 | <i>Melia azedarach</i> L. | Mahaneem | Meliaceae | Bark, Fruit | Leprosy, and germicidal. |
| 106 | <i>Mentha arvensis</i> L. | Pudina | Lamiaceae | Whole plant | Jaundice, to stop vomiting, Abdominal pain |

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| 107 | <i>Mimosa pudica</i> L. | Lajwanti | Fabaceae | Root | In Leprosy, Dysentery, Vaginal, Asthma, Leucoderma. |
| 108 | <i>Mimusops elengi</i> L. | Bakul, Moulshree | Sapotaceae | Seed oil, Fruit | Used as astringent and for loosening the teeth. |
| 109 | <i>Mirabilis jalapa</i> Linn. (Red) | Lal gulab | Nyctaginaceae | Root, Leaf | In Fever, Syphilis, Inflammation, Burns. |
| 110 | <i>Momordica charantia</i> L. | Karela | Cucurbitaceae | Fruit juice | Rheumatism and gout, used as tonic. |
| 111 | <i>Moringa oleifera</i> Lamk. | Munga | Moringaceae | Seed, Leaf | Fever, wound. |
| 112 | <i>Morus alba</i> L. | Shahtoot | Moraceae | Fruit, Root | For Vitality and Immune support, Anti-cancer. |
| 113 | <i>Muehlenbeckia platyclada</i> (F.J.Mull.) Meisn. | Ribbon bush | Polygonaceae | Stem, Leaf | Anti-inflammatory. |
| 114 | <i>Murraya koenigii</i> Spreng. | Kurrypatta | Rutaceae | Leaf | Hypertension, Gynaecological problems. |
| 115 | <i>Nephrolepis exaltata</i> (L.) Schott | Fern | Lamariopsidaceae | Leaf | Skin disorders. |
| 116 | <i>Nyctanthes arbour-tristis</i> L. | Harshringar | Oleaceae | Leaf | Asthma, Rheumatism, Sciatica, Inflammation, haemorrhoid |
| 117 | <i>Ocimum basilicum</i> L. | Krishanatulsi | Lamiaceae | Leaf | Cough and cutaneous diseases. |
| 118 | <i>Ocimum kilimandsiharicum</i> Gurke. | Dauna | Lamiaceae | Leaf | Cough, Cold, Rheumatism. |
| 119 | <i>Ocimum sanctum</i> L. | Tulsi | Lamiaceae | Leaf | Cough, Cold and cutaneous diseases. |
| 120 | <i>Opuntia ficus-indica</i> (L.) Mill | Nagphani | Cactaceae | Phylloclade | Diabetes, Asthma, Diarrhoea, Dysentery, Gastritis, Colitis, Gonorrhoea, Syphilis |
| 121 | <i>Pandanus odoratissimus</i> Linn. | Kewda | Pandanaceae | Flower | Anti-spasmodic, In headache, In Rheumatism, In snake bites. |
| 122 | <i>Phyllanthus acidus</i> (L.) Skeels. | Shriamla | Phyllanthaceae | Fruit, Root, Bark, Seed | Cough, Asthma, Skin diseases, Nausea, Cancer. |
| 123 | <i>Phyllanthus niruri</i> L. | Bhuiamla | Euphorbiaceae | Whole plant | Dysentery, Jaundice, Genitourinary affections, Sores. |
| 124 | <i>Piper betle</i> L. | Pan | Piperaceae | Leaf | Bronchitis, Stomach-ache and to prevent foul smell of mouth. |
| 125 | <i>Piper longum</i> L. | Pippali | Piperaceae | Fruits, Root | Bronchitis, Cough, Cold, Asthma, Stomach ache. |
| 126 | <i>Piper nigrum</i> L. | Kali mirch | Piperaceae | Fruits | Anti-tumourigenic, Immunostimulatory, Cough, Cold, Syphilis, Diabetes |
| 127 | <i>Plectranthus amboinicus</i> (Lour.) Spreng. | Patta ajvayin | Lamiaceae | Leaf | Cough, Rheumatism, Bronchitis, Skin allergy, Chronic asthma. |
| 128 | <i>Plectranthus barbatus</i> Andrews | Coleus forskolin | Lamiaceae | Root | High BP, Cardiovascular disorder, Anti-allergic |
| 129 | <i>Polianthes tuberosa</i> Linn. | Rajanigandha | Agavaceae | Flower, Bulbs | In Gonorrhoea, Diuretic, Emetic. |
| 130 | <i>Prunus amygdalus</i> Baill. | Badam | Rosaceae | Seed oil, Leaf | Head-ache and as a poultice to irritable sores, skin eruptions. |
| 131 | <i>Prunus avium</i> (L.) L. | Sweet cherry | Rosaceae | Stalks of Drupes | Astringent, Antitussive, Diuretic. |
| 132 | <i>Psidium guayava</i> L. | Bihi, Jam | Myrtaceae | Leaf | Ulcers, tooth-ache and wounds. |
| 133 | <i>Pterocarpus santalinus</i> L.F. | Rakat chandan | Fabaceae | Wood, Oil | Digestive tract problems, Cough, Blood purifier, Diuretic. |
| 134 | <i>Punica granatum</i> L. | Anar | Lynthraceae | Seed | Liver and kidney disorders, used to enrich the blood. |
| 135 | <i>Putranjiva roxburghii</i> Wall | Putranjiva | Euphorbiaceae | Leaf, Fruit | In cold and fever |
| 136 | <i>Pyrus malus</i> L. | Sev, Apple | Rosaceae | Fruit, Flower, | Health tonic, cancer, Antioxidant, |

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|-----|---|------------------------|----------------|--------------------------|--|
| | | | | Bark | Rheumatism, Diabetes, Skin problems |
| 137 | <i>Quisqualis indica</i> L. | Basant malti | Combretaceae | Root, Seed, Fruit | Round worm, Pin worm, Nephritis, Rheumatism. |
| 138 | <i>Raphanus sativus</i> L. | Muli | Brassicaceae | Leaf, Root | In jaundice and gall bladder stone. |
| 139 | <i>Rauwolfia serpentina</i> Benth. | Bhuikurva, Sarpghanga. | Apocynaceae | Leaf, Root | High blood pressure and used in mental disorders, Snake bite. |
| 140 | <i>Ricinus communis</i> L. | Arandi | Euphorbiaceae | Seed oil | Constipation and used as oral contraceptive, |
| 141 | <i>Ruellia tuberosa</i> L. | Nagkanta | Acanthaceae | Leaf, Root. | In snake bite. |
| 142 | <i>Sansevieria cylindrica</i> (Bojer ex Hook) | Tongue | Asparagaceae | Leaf, Tubers | Diuretic, Laxative, In Snake bite, Dental caries, Headache. |
| 143 | <i>Sansevieria trifasciata</i> Prain | Snake plant | Asparagaceae | Leaf | Analgesic, Antipyretic and used to cure herpes zoster. |
| 144 | <i>Santalum album</i> L. | Chandan | Santalaceae | Wood, Oil | Urogenital problem, Skin disorder, Aromatherapy |
| 145 | <i>Scindapsus aureus</i> (Linden and Andre) Engl. | Money plant | Araceae | Leaf | Anti-allergy |
| 146 | <i>Spinacea oleracea</i> L. | Palak | Amaranthaceae | Leaf | As iron tonic and vitamin |
| 147 | <i>Stereospermum chelonoides</i> (L.f.) DC. | Garud | Bignoniaceae | Fruit, Seed, Root, Leaf. | Urinary retention, Skin diseases, Cough, Arthritis, Muscular pain, Kidney stone. |
| 148 | <i>Stevia rebaudiana</i> Cav. | Meethi tulsi | Asteraceae | Leaf | Cardiac stimulant, Obesity, Hypertension, Natural sweetener for Diabetics. |
| 149 | <i>Swertia chirayita</i> Roxb. | Chirayta | Gentianaceae | Aerial part | Malaria, Dyspepsia, Diarrhoea Diabetes |
| 150 | <i>Syzygium aromaticum</i> (L.) Merrill & Perry | Loung/Clove | Myrtaceae | Flower bud | Toothache, Carminative, Natural anthelmintic, Cough |
| 151 | <i>Syzygium cumini</i> (L.) Skeels | Jamun | Myrtaceae | Fruit | Diabetes, Stomach-ache, Enlarged spleen. |
| 152 | <i>Tamarindus indica</i> L. | Imali | Fabaceae | Fruit | As refrigerant, digestive and laxative. |
| 153 | <i>Tectona grandis</i> L. | Sagoan | Verbenaceae | Wood ash | In swollen eyelids and strengthen the sight. |
| 154 | <i>Terminalia arjuna</i> (Roxb.) Weight. | Kahava | Comberataceae | Bark | Heart diseases, Ulcer and used as tonic. |
| 155 | <i>Thuja occidentalis</i> L. | Vidhya | Cupressaceae | Foliage | warts, Ringworm, Gastrointestinal |
| 156 | <i>Tinospora cordifolia</i> (Willd.) Miers. | Giloy | Menispermaceae | Whole plant | Cancer, Sexual impotency, Diabetes, Gonorrhoea, Syphilis, Boost immune system |
| 157 | <i>Tridax procumbens</i> L. | Ghawapatti | Asteraceae | Whole plant | Bleeding piles. |
| 158 | <i>Trigonella foenum-graecum</i> L. | Methi | Fabaceae | Seed, Leaf | Cough, liver disorder, Enlargement of spleen |
| 159 | <i>Triticum aestivum</i> L. | Gehu | Poaceae | Wheat grass | Antioxidant, In Anaemia, Cancer, Rheumatism, Cold, Flu, Menstrual cramps |
| 160 | <i>Turnera ulmifolia</i> L. | Ram goat | Passifloraceae | Leaf, Flower | In paralysis. Wound healing, Skin diseases, Otitis, Nervine weakness |
| 161 | <i>Vanda roxburghii</i> Br. | Badang | Orchidaceae | Whole plant | Antidysentric, Diaphoretic, Stomachic, Insomnia bite. |
| 162 | <i>Vernonia cinerea</i> (Linn.) Less | Sahdevi | Asteraceae | Whole plant | Analgesic, Sprain, Rheumatism, Joint disorder, Anti-inflammatory |
| 163 | <i>Vitex negundo</i> L. | Nirgundi | Verbanaceae | Leaf | Diuretic, Bronchitis, ulcers, Gonorrhoea, Carbuncles |
| 164 | <i>Vitis indica</i> L. | Debharinar | Vitaceae | Root | As nerve tonic, impotency, rejuvenate, Oligospermia, arthritis |
| 165 | <i>Withania somnifera</i> (L.) Dunal. | Ashwagandha | Solanaceae | Root and Leaf | Analgesic, Anti-inflammatory, |
| 166 | <i>Zingiber cassumunar</i> | Jangli Adarak | Zingiberaceae | Rhizome | |

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| | Roxb. | | | | Antimicrobial, Dermatophytes |
| 167 | <i>Zingiber officinale</i> Rosc. | Adrak | Zingiberaceae | Rhizome | Cough and cold. |
| 168 | <i>Zizyphus jujuba</i> Lamk. | Ber | Rhamnaceae | Fruit, Bark | In diarrhoea, and for dressing wound. |

4. Discussion

A total of 168 medicinal plants were recorded in 100 homegardens of Raipur city. Wezel and Bender ^[18] in study of 31 homegardens in Cuba found 19 plant species with medicinal values and 50 species were cultivated as medicinal plants. The number is very low as compared to the present investigation. Kala ^[19] reported 20 medicinal plants in homegardens of ten villages of Pachmarhi biosphere reserve were found to be used in various ailments like stomach disorder, and to cure cough and cold. Results of present study indicated presence of 168 medicinal plants in the homegardens of Raipur city. It showed urban homegardens of Raipur city are rich in terms of medicinal plants than the other parts of the country and it is a good means of Ex- situ conservation. It was noticed that beside several other uses many plants growing in the homegarden were frequently used for home remedies. According to Roig- y-Mesa ^[20] all the plants in Cuban homegardens had some potential medicinal use.

In urban homegardens medicinal plants were found to be deliberately cultivated. Similar conclusion was derived by Rao and Rao ^[21], that medicinal plants in homegardens are deliberately cultivated. Agelet *et al.* ^[22] made a detailed analysis of medicinal plants found in 155 homegardens in the mountain zones of Catalonia (north-eastern Iberian Peninsula, Spain). The gardens contained nine distinct categories of species: plants exclusively cultivated for medicinal purpose (23) mostly close to the house, the medicinal wild plants favoured by homegarden structure and care (105), and seven kinds of horticultural plants with complementary medicinal values (117).

Medicinal plants growing in the Homegarden are known to be used as a whole plant, or their extract, or paste for treatment of diseases, like skin infection, dysentery, diarrhoea, cough, cold, bronchitis, asthma, stomach-ache, tooth-ache and many gynaecological problems. Many herbs were known to be used to improve health, to kill worms, for joint pain, to cure anaemia, cold, cough, cuts, wounds, headache, stomach-ache, toothache, leprosy, poisonous insect bite, skin disease, during pregnancy and delivery, in sprain, for lactation, in jaundice, in cancer, in eye problems, in hypertension and leucoderma. Many plant extract were known to be used as tonic. Albuquerque *et al.* ^[23] had concluded that, homegardens make a substantial contribution to the supply of medicinal plants.

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