

## **E. LIST OF KEY ECOLOGICAL AND ECONOMIC SPECIES OF ZAMBIA**

By W. K. CHISHIMBA

### **E.1 Introduction**

The continent of Africa is richly endowed with great biological diversity and genetic resources. Zambia being one of the countries in sub-saharan Africa is rich in plant and animal taxa. Unfortunately, due to modern farming techniques, population pressure and over-exploitation of these genetic resources, the rich biological diversity that once existed is slowly being lost. Unless urgent measures are taken to rescue some of the already endangered species, the consequences will be disastrous on the globe and to humanity in particular. It is therefore with this view that a compilation or checklist of key ecological and economic species in Zambia will enable target scientists in the field to establish meaningful conservation strategies.

Zambia is blessed with a rich diversity of plant genetic resources which are important both in terms of their ecological and economic functions. Obviously, compiling a list of this magnitude in a country like Zambia, would be too enormous if every plant was included without following a proper criterion. Therefore, in order to come up with a well defined checklist, the authors confined themselves to four groups of plants, trees and shrubs, herbs, grasses and mushrooms, that possess a certain economic value. The latter included utilisation as food, medicine, fodder or as an industrial raw material. The list focused more on underutilised plants, for example, if medicinal they are mainly useful to villagers or poor town dwellers, but are commercially underexploited. In terms of food utilisation, plants that serve as a good source of food when in season but are still wild, or those which people turn to in times of famine and yet they are least emphasised as agricultural crops. Furthermore, any wild plant that has an agricultural crop relative is regarded as important because of its usefulness as a plant genetic resource in future breeding. As for fodder plants, Zambia enjoys a rich endowment of this group of plants. Few of these plants are commercially cultivated, and yet they sustain the livestock industry in Zambia both at commercial and non-commercial levels. Finally, mushrooms add variety to the diet of many people in Zambia and yet none of the local species can be commercially grown due to lack of adequate information. The deliciousness of some of these mushrooms affords local people a good opportunity of raising a cheap source of income.

## E.2 Key species of Zambia

### List of key ecological and economic species of Zambia

| Plant Species<br>(Common name<br>in parentheses)           | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      |              | SOCIO-ECONOMIC FUNCTIONS |                     |          |                             | Reasons for inclusion                                                                |
|------------------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|--------------------------|---------------------|----------|-----------------------------|--------------------------------------------------------------------------------------|
|                                                            |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                      |
| <i>Chrysophyllum<br/>magalismontanum</i>                   | Zambia                         |                       |                          | X                    |              | X                        |                     | X        |                             | Edible fruit, bark possesses<br>traditional value                                    |
| <i>Diplorhynchus<br/>condylocarpon</i>                     | Zambia                         |                       |                          | X                    |              | X                        |                     | X        |                             | Medicinal value and source<br>of fodder                                              |
| <i>Ficus capensis</i><br>(Cape fig)                        | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Varied use for fruit and<br>wood                                                     |
| <i>Ficus ingens</i>                                        | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Possesses a medicinal value                                                          |
| <i>Ficus sycomorua</i>                                     | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Used as fodder and also has<br>medicinal value                                       |
| <i>Minusops zeyheri</i><br>(Red milkwood)                  | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | A tree of riparian woodlands<br>and termite mounds. Popular<br>and high in vitamin C |
| <i>Rauvolfia caffra</i><br>(Quinine tree)                  | Zambia                         |                       |                          | X                    |              |                          |                     | X        |                             | Wood used for domestic<br>tools. Has cultural value                                  |
| <i>Acacia albidia</i><br>(Winter thorn)                    | Africa                         | X                     | X                        | X                    | X            | X                        |                     |          | X                           | Good animal fodder                                                                   |
| <i>Acacia erioloba</i><br>(Camel thorn)                    | Southern Africa                | X                     | X                        | X                    | X            | X                        |                     |          | X                           | As above                                                                             |
| <i>Acacia sieberana</i><br>(White thorn)                   | Africa                         | X                     | X                        | X                    | X            | X                        |                     |          | X                           | Pods eaten by game and<br>cattle. Flowers attractive<br>to bees                      |
| <i>Acacia tortilis</i><br>(Umbrella thorn)                 | Africa                         | X                     | X                        | X                    | X            | X                        |                     |          | X                           | Pods eaten by game and<br>cattle                                                     |
| <i>Balanites aegyptiaca</i><br>(Torchwood,<br>desert date) | Africa                         |                       |                          | X                    | X            | X                        |                     | X        |                             | Good animal fodder,<br>contains high crude protein                                   |

ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses)              | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                            |
|---------------------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|----------------------------------------------------------------------------------|
| <i>Dalbergia<br/>melanoxylon</i><br>(African blackwood)       | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Wood is excellent for instruments. High demand from abroad                       |
| <i>Oncoba spinosa</i><br>(Wild rose)                          | Africa                         |                       |                          | X                    |              |           |                     | X        |                             | Has medicinal and cultural value                                                 |
| <i>Acacia nigrescens</i><br>(Knob thorn)                      | Zambia                         | X                     | X                        | X                    | X            | X         |                     |          | X                           | Game fodder. Bark, root and leaves are used for medicine                         |
| <i>Acacia polyacantha</i><br>(Hook thorn)                     | Africa                         | X                     | X                        | X                    | X            | X         |                     |          | X                           | Good animal fodder. Produces gum for dyeing and tanning                          |
| <i>Strychnos<br/>cocculoides</i><br>(Bush orange)             | Zambia                         |                       |                          | X                    | X            | X         |                     |          |                             | Produces fruit which is highly consumed                                          |
| <i>Zanthoxylum<br/>chalybeum</i>                              | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves consumed by cattle and humans                                             |
| <i>Ziziphus abyssinica</i>                                    | Zambia                         |                       |                          | X                    |              | X         |                     |          |                             | Excellent tree for bees. Used as fodder                                          |
| <i>Bauhinia petersiana</i>                                    | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Elephant fodder. Root used in tanning. Both roots and leaves have medicinal uses |
| <i>Colophospermum<br/>mopane</i> (Mopane,<br>turpentine tree) | Southern Africa                |                       |                          | X                    | X            | X         |                     |          |                             | Host for edible caterpillar (mopane worm). Good fodder for cattle and game       |
| <i>Guibouria<br/>coleosperma</i>                              | Southern Africa                |                       |                          | X                    | X            | X         |                     |          |                             | Elephant fodder. Bark useful in dyeing and tanning                               |
| <i>Ptilostigma<br/>thoningii</i><br>(Monkey bread)            | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Useful fodder tree. Dyes made from bark and roots. Various medicinal uses        |

*List of key ecological and economic species of Zambia*

| ECOLOGICAL FUNCTIONS                                            |                                |                       |                          | SOCIO-ECONOMIC FUNCTIONS |              |           |                     |          | Reasons for inclusion |                                                                                |
|-----------------------------------------------------------------|--------------------------------|-----------------------|--------------------------|--------------------------|--------------|-----------|---------------------|----------|-----------------------|--------------------------------------------------------------------------------|
| Plant Species<br>(Common name<br>in parentheses)                | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure     | Colonisation | Commodity | Genetic<br>Resource | Cultural |                       | Environmental<br>Management                                                    |
| <i>Rhus longipes</i>                                            | Africa                         |                       |                          | X                        | X            | X         |                     |          |                       | Good bee tree. Leaves<br>browsed by cattle                                     |
| <i>Adansonia digitata</i><br>(Baobab)                           | Africa                         |                       |                          | X                        | X            | X         |                     |          |                       | Fruit high in vitamin C. Used<br>to make refreshing drink                      |
| <i>Azanza garckeana</i><br>(Tree hibiscus)                      | Africa                         |                       |                          | X                        | X            | X         |                     |          |                       | Browsed by game. Fruit<br>and leaves edible                                    |
| <i>Cussonia arborea</i>                                         | Africa                         |                       |                          |                          | X            | X         |                     |          |                       | Possesses medicinal value.<br>Wood useful in toolmaking                        |
| <i>Oldfieldia<br/>dactylophylla</i>                             | Southern Africa                |                       |                          | X                        |              | X         |                     |          |                       | Has medicinal value                                                            |
| <i>Ricinodendron<br/>rautanenii</i>                             | Southern Africa                |                       |                          | X                        | X            | X         |                     |          |                       | Wood is used in handicraft<br>production. Fruit is eaten<br>by cattle and game |
| <i>Sterculia<br/>quinqueloba</i><br>(Egyptian plant tree)       | Southern Africa                |                       |                          | X                        | X            | X         |                     | X        |                       | Makes a good live fence.<br>Bark and leaves have<br>magical and medicinal use  |
| <i>Vitex doniana</i>                                            | Africa                         |                       |                          | X                        |              | X         |                     |          |                       | Fruit is rich in vitamins A<br>and E. Can be processed<br>to make jam          |
| <i>Azelia quanzensis</i><br>(Pod mahogany,<br>lucky beam)       | Africa                         |                       |                          |                          | X            | X         |                     | X        |                       | Very durable all-purpose<br>timber. Bark a useful<br>medicine                  |
| <i>Baikiaea plurijuga</i><br>(Zambezi redwood,<br>Zambian teak) | Southern Africa                |                       |                          | X                        | X            | X         |                     |          |                       | Excellent durable timber.<br>Bark cures syphilis                               |
| <i>Bruchystegia<br/>boehmii</i>                                 | Southern Africa                |                       |                          | X                        | X            | X         |                     |          |                       | Suitable to hang bark<br>beehives. An infusion of<br>roots treats diarrhoea    |
| <i>Brachystegia<br/>floribunda</i>                              | Southern Africa                |                       |                          | X                        |              | X         |                     |          |                       | Used for mine timbers.<br>Makes good charcoal                                  |

## ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses)     | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                               |
|------------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|-------------------------------------------------------------------------------------|
| <i>Brachystegia longifolia</i>                       | Southern Africa                |                       |                          | X                    | X            | X         |                     |          |                             | Used for mine timbers.<br>Good for bees. Useful in<br>local medicine preparation    |
| <i>Brachystegia microphylla</i><br>(Mountain scacia) | Zambia                         |                       |                          | X                    | X            | X         |                     |          |                             | Excellent for mine timbers.<br>Useful for construction<br>industry                  |
| <i>Brachystegia spiciformis</i>                      | Southern Africa                |                       |                          | X                    | X            | X         |                     |          |                             | Popular beehive tree.<br>Good mining timber                                         |
| <i>Brachystegia taxifolia</i>                        | Zambia                         |                       |                          | X                    | X            |           |                     | X        |                             | An infusion of roots is<br>believed to wash away bad<br>luck in some places         |
| <i>Cassia abbreviata</i><br>(Long-pod cassia)        | East/<br>Central Africa        |                       |                          | X                    |              | X         |                     | X        |                             | Various medicinal uses, eg.<br>treatment of smallpox,<br>stomach pains and syphilis |
| <i>Dalbergia nitidula</i>                            | Zambia                         |                       |                          | X                    | X            | X         |                     | X        |                             | Roots have a variety of<br>medicinal uses, including<br>pleurisy and gonorrhoea     |
| <i>Ekebergia benguelensis</i>                        | Zambia                         |                       |                          | X                    |              | X         |                     | X        |                             | Leaves used to treat<br>snakebite. Bark useful in<br>treating venereal disease      |
| <i>Ekebergia capensis</i>                            | Africa                         |                       |                          | X                    |              | X         |                     | X        |                             | Various medicinal uses for<br>roots, bark and leaves                                |
| <i>Entandrophragma caudatum</i>                      | Southern Africa                |                       |                          | X                    | X            | X         |                     | X        |                             | Sacred tree, used in making<br>chiefs' canoes, masks, etc                           |
| <i>Entandrophragma delevoiyi</i>                     | Zambia                         |                       |                          | X                    |              | X         |                     | X        |                             | Bark has medicinal value.<br>Wood is used in building                               |
| <i>Isobertlinia angolensis</i>                       | Zambia                         |                       |                          | X                    | X            | X         |                     | X        |                             | Used as mining timber.<br>Good honey. Host to<br>several edible caterpillars        |
| <i>Julbernardia globiflora</i>                       | Zambia                         |                       |                          | X                    | X            | X         |                     |          |                             | It is a good bee tree. Used<br>for mine timbers                                     |

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|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|--------------------------|---------------------|----------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                                                                                                    |                       |
| <i>Julbernardia<br/>paniculata</i>               | Southern Africa                |                       |                          | X                    |              | X                        |                     |          |                             | Very valuable tree for<br>beekeepers because of<br>abundant flowers. Good<br>mining timber. Host to 3<br>species of edible caterpillar.<br>Cattle browse on leaves |                       |
| <i>Khaya nyasica</i>                             | Southern Africa                |                       |                          | X                    |              | X                        |                     | X        |                             | Bark has a variety of<br>medicinal uses. Wood<br>good for furniture and<br>quality joinery                                                                         |                       |
| <i>Kigelia africana</i><br>(Sausage tree)        | Africa                         |                       |                          | X                    | X            |                          |                     | X        |                             | Has numerous magical and<br>medicinal uses                                                                                                                         |                       |
| <i>Kirkia acuminata</i>                          | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Makes a good live fence.<br>Bark reported to have<br>toothache treatment qualities                                                                                 |                       |
| <i>Lannea discolor</i>                           | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Suitable for light carpentry<br>and joinery                                                                                                                        |                       |
| <i>Lannea stuhlmannii</i>                        | Africa                         |                       |                          | X                    | X            | X                        |                     | X        |                             | Tree believed to invoke<br>ancestral spirits                                                                                                                       |                       |
| <i>Lonchocarpus<br/>capassa</i> (Lilac tree)     | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Good tree with copious<br>honey flow                                                                                                                               |                       |
| <i>Markhamia<br/>obtusifolia</i>                 | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Tree heavily browsed by<br>cattle. Both roots and fruit<br>have medicinal value                                                                                    |                       |
| <i>Parkia filicoidea</i>                         | Africa                         |                       |                          | X                    |              |                          | X                   |          |                             | Pods are a good stock food.<br>Has been used for tanning<br>leather in Sudan                                                                                       |                       |
| <i>Pericopsis<br/>angolensis</i>                 | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Useful fence post. Tanning<br>and carving. Leaves browsed<br>by cattle and game                                                                                    |                       |

ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses)    | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                                         |
|-----------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|-----------------------------------------------------------------------------------------------|
| <i>Pterocarpus angolensis</i>                       | Southern Africa                |                       |                          | X                    |              | X         |                     |          |                             | Excellent for furniture and high class joinery as well as construction                        |
| <i>Pterocarpus antunesii</i>                        | Southern Africa                | X                     |                          | X                    |              | X         |                     |          |                             | Browsed by cattle. A favourite tree of the elephant                                           |
| <i>Sclerocarya caffra</i><br>(Marula)               | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves browsed by cattle and game. Edible fruit rich in vitamin C                             |
| <i>Spathodea campanulata</i>                        | Africa                         |                       |                          | X                    |              | X         |                     | X        | X                           | A good ornamental and shade tree. Various parts have medicinal value. It has a cultural value |
| <i>Steganotaenia araliacea</i><br>(Carrot tree)     | Africa                         |                       |                          | X                    |              | X         |                     | X        |                             | Both roots and leaves have medicinal uses                                                     |
| <i>Stereospermum kunthianum</i><br>(Pink jacaranda) | Africa                         |                       |                          | X                    |              |           |                     | X        | X                           | Of ornamental importance. Leaves, bark, roots and pods are reported to be useful medicinally  |
| <i>Swartzia madagascariensis</i><br>(Snake bean)    | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Has a variety of local medicinal uses                                                         |
| <i>Tamarindus indica</i><br>(Tamarind)              | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves and fruit much liked by elephants. Various medicinal uses are reported                 |
| <i>Xeroderris stuhlmannii</i>                       | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Leaves are browsed by elephants                                                               |
| <i>Albizia adianthifolia</i>                        | Africa                         |                       |                          | X                    | X            | X         |                     | X        |                             | Foliage browsed by cattle. Gum, roots and bark have a variety of medicinal uses               |

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|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|--------------------------|---------------------|----------|-----------------------------|-----------------------------------------------------------------------------------------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                                     |
| <i>Albizia amara</i>                             | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Useful for furniture, tanning and general construction. Fruit used as remedy for coughs and malaria |
| <i>Albizia antunesiana</i>                       | Southern Africa                |                       |                          | X                    | X            | X                        |                     |          |                             | Has very good honey flow. Browsed by cattle. The bark roots and leaves have varied medicinal uses   |
| <i>Albizia harveyi</i>                           | Eastern and Southern Africa    |                       |                          | X                    | X            | X                        |                     |          |                             | Foliage browsed by cattle and game                                                                  |
| <i>Albizia versicolor</i>                        | Eastern and Southern Africa    |                       |                          | X                    | X            | X                        |                     |          |                             | Leaves browsed by game. Wood used to make domestic tools                                            |
| <i>Amblygonocarpus andongensis</i>               | Africa                         |                       |                          | X                    | X            | X                        |                     |          |                             | Pods browsed by cattle and game. Wood useful in general construction and building works             |
| <i>Burkea africana</i><br>(Wild syringa)         | Africa                         |                       |                          | X                    | X            | X                        |                     |          |                             | Foliage eaten by game. Host to edible caterpillars                                                  |
| <i>Delonix regia</i><br>(Flamboyant)             | Malagasy                       |                       |                          | X                    |              | X                        |                     |          | X                           | A common street tree in Zambia. The bark has medicinal value                                        |
| <i>Entada abyssinica</i>                         | Africa                         |                       |                          | X                    | X            |                          |                     | X        |                             | Plays a part in rain making ceremonies                                                              |
| <i>Erythrophleum africanum</i>                   | Africa                         |                       |                          | X                    | X            | X                        |                     |          |                             | Good mining timber. Suitable for general building and construction                                  |
| <i>Peltophorum africanum</i><br>(African wattle) | Southern Africa                |                       |                          | X                    | X            |                          |                     |          | X                           | As above. Foliage eaten by rhino                                                                    |

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|---------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|--------------------------------------------------------------------------------------------------------|
| <i>Anisophyllea boehmii</i>                       | Zambia                         |                       |                          | X                    |              | X         |                     |          |                             | The wild fruit is very popular. Roots, bark and leaves are used in medicines. Foliage grazed by cattle |
| <i>Anisophyllea pomifera</i>                      | Zambia                         |                       |                          | X                    |              | X         |                     |          |                             | The wild fruit is very popular. Tree browsed by cattle                                                 |
| <i>Baphia bequaertii</i>                          | Zambia                         |                       |                          | X                    |              | X         |                     |          |                             | Trees browsed by cattle                                                                                |
| <i>Baphia massaiensis</i>                         | Southern Africa                |                       | X                        |                      | X            | X         |                     |          | X                           | Rapid invader of soils depleted by cassava. N-fixer. Has medicinal value                               |
| <i>Boscia angustifolia</i>                        | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Tree good for honey. Game and livestock fodder                                                         |
| <i>Bridelia micrantha</i>                         | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | A variety of medicinal uses. Excellent firewood and charcoal                                           |
| <i>Diospyros batocana</i>                         | Southern Africa                |                       |                          | X                    |              |           |                     | X        |                             | Magico-medical properties. Wide variety of medicinal uses                                              |
| <i>Diospyros kirkii</i>                           | Southern Africa                |                       |                          | X                    |              | X         |                     |          |                             | Edible fruit, not cultivated                                                                           |
| <i>Diospyros mespiliformis</i><br>(African ebony) | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves browsed by game and birds                                                                       |
| <i>Dombeya rotundifolia</i><br>(Wild pear)        | Southern Africa                |                       |                          | X                    |              | X         |                     |          |                             | Has good nectar flow and makes good honey                                                              |
| <i>Fawrea saligna</i>                             | Africa                         |                       |                          | X                    |              |           |                     |          |                             | Produces abundant nectar, good bee tree                                                                |
| <i>Fawrea speciosa</i>                            | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Used in furniture making. Roots and leaves have medicinal value                                        |

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| Plant Species<br>(Common name<br>in parentheses)    | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                                                                 |  |
| <i>Hymenocardia acida</i>                           | Africa                         |                       |                          | X                    |              | X                        |                     |          |                             | Has a variety of medicinal and magical uses                                                                           |  |
| <i>Magnistipula butoyei</i>                         | Africa                         |                       |                          |                      | X            | X                        |                     |          |                             | Bark and roots useful in preparation of few traditional medicines                                                     |  |
| <i>Marquesia macroura</i>                           | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | A valuable mining timber. Good flooring timber                                                                        |  |
| <i>Parinari curatellifolia</i>                      | Africa                         |                       |                          | X                    |              | X                        |                     | X        |                             | Edible fruit. Kernel has high oil content                                                                             |  |
| <i>Phyllocosmus lemaireanus</i>                     | Southern Africa                |                       |                          | X                    |              | X                        |                     | X        |                             | Reputed to be good for colds, coughs and sore eyes                                                                    |  |
| <i>Pseudolachnostylis maprouneifolia</i>            | Africa                         |                       |                          | X                    | X            | X                        |                     |          |                             | It is browsed by game and is a good fuel wood. The tree has both magical and medicinal value                          |  |
| <i>Securidaca longepedunculata</i><br>(Violet tree) | Africa                         |                       |                          | X                    |              | X                        |                     |          |                             | Game animals browse the leaves                                                                                        |  |
| <i>Terminalia mollis</i>                            | Central Africa                 |                       |                          | X                    | X            | X                        |                     |          |                             | Leaves browsed by game and sometimes cattle                                                                           |  |
| <i>Uapaca kirkiana</i><br>(Wild loquat)             | Southern Africa                |                       |                          | X                    |              | X                        |                     |          |                             | Fruit is highly sought after from wild. Very nutritious. Can be processed into refreshing drink or jam. Good bee tree |  |
| <i>Uapaca nitida</i>                                | Central Africa                 |                       |                          | X                    |              | X                        |                     | X        |                             | The fruits make nourishing pig feed. Both magical and medicinal values                                                |  |
| <i>Uavariastrum hexaloboides</i>                    | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Elephants like the bark, leaves and fruit                                                                             |  |

ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                                        |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|----------------------------------------------------------------------------------------------|
| <i>Xylopia odoratissima</i>                      | Southern Africa                |                       |                          | X                    |              | X         |                     | X        |                             | Roots used in local medicines. Also some magical value                                       |
| <i>Berchemia discolor</i>                        | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | The fruit is edible and very popular                                                         |
| <i>Combretum imberbe</i><br>(Leadwood)           | Southern Africa                |                       |                          | X                    |              | X         |                     |          |                             | Useful in general construction including railway sleepers                                    |
| <i>Combretum molle</i><br>(Bush willow)          | Africa                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves browsed by giraffe, elephant and cattle                                               |
| <i>Combretum zeyheri</i>                         | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Produces abundant nectar, good honey tree. Roots, leaves and bark have local medicinal value |
| <i>Garcinia huillensis</i>                       | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | The bark, roots and leaves used for a wide variety of illnesses, including syphilis          |
| <i>Garcinia livingstonei</i>                     | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Foliage browsed by elephants. Barks and roots have limited medicinal value                   |
| <i>Mitragyna stipulosa</i>                       | Africa                         |                       |                          | X                    |              | X         |                     | X        |                             | It is alleged to have many medicinal uses                                                    |
| <i>Rothmannia whittfieldii</i>                   | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Roots, leaves, bark and fruit are useful in preparing local medicines                        |
| <i>Strychnos innocua</i><br>(Wild orange)        | Africa                         |                       |                          | X                    |              | X         |                     |          |                             | Leaves are eaten by livestock. The fruit is edible                                           |
| <i>Syzygium cordatum</i><br>(Water berry)        | Southern Africa                |                       |                          | X                    | X            | X         |                     |          |                             | Leaves browsed by elephants. Fruits eaten by birds, bushbabies and bats                      |

*List of key ecological and economic species of Zambia*

|                                                          |                                |                       | ECOLOGICAL FUNCTIONS     |                      |              |           | SOCIO-ECONOMIC FUNCTIONS |          |                             |                                                                                                          |  |
|----------------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|--------------------------|----------|-----------------------------|----------------------------------------------------------------------------------------------------------|--|
| Plant Species<br>(Common name<br>in parentheses)         | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource      | Cultural | Environmental<br>Management | Reasons for inclusion                                                                                    |  |
| <i>Syzgium guineense</i>                                 | Eastern and<br>Southern Africa |                       |                          | X                    | X            | X         |                          |          |                             | Fruit edible. Roots, bark<br>and leaves have various<br>medicinal uses                                   |  |
| <i>Syzgium owariense</i><br>(Water berry)                | Africa                         |                       |                          | X                    | X            | X         |                          |          |                             | It is an excellent bee tree                                                                              |  |
| <i>Vangueriopsis<br/>lanciflora</i><br>(Wild medlar)     | Southern Africa                |                       |                          | X                    | X            |           |                          | X        |                             | Considered sacred in some<br>parts of Zambia                                                             |  |
| <i>Acacia giraffae</i><br>Burch.<br>(Camel thorn)        | Africa                         |                       | X                        | X                    |              | X         |                          | X        | X                           | Pods are relished by game<br>and cattle, especially<br>giraffe                                           |  |
| <i>Ximenia americana</i><br>L. (Sour plum,<br>wild plum) | Africa                         |                       |                          | X                    |              | X         |                          |          |                             | The plum-like fruits are<br>edible. Almond-flavoured<br>and tasty when fully ripe                        |  |
| <i>Cordyla africana</i><br>Lour.<br>(Wild mango)         | Zambia                         |                       |                          | X                    |              | X         |                          |          |                             | Fruit is favourite food of<br>elephants. Seeds roasted<br>before eaten. Timber<br>useful in construction |  |
| <i>Dialium englerianum</i><br>Henriques                  | Zambia                         |                       |                          | X                    | X            | X         |                          |          |                             | Fruit eaten by cattle                                                                                    |  |
| PALMS                                                    |                                |                       |                          |                      |              |           |                          |          |                             |                                                                                                          |  |
| <i>Hexalobus<br/>monopetalus</i> Engl.                   | Zambia                         |                       |                          | X                    |              | X         |                          |          |                             | The fruit is edible and<br>makes a delicious jam                                                         |  |
| <i>Hyphaene ventricosa</i><br>(Doom palm)                | Southern Africa                | X                     |                          | X                    | X            | X         |                          |          |                             | Fruit sap used as palm<br>wine                                                                           |  |
| <i>Phoenix reclinata</i>                                 | Africa                         | X                     |                          | X                    | X            | X         |                          |          | X                           | As above. Also useful<br>ornamental                                                                      |  |
| <i>Raphia farinifera</i>                                 | Zambia                         | X                     |                          | X                    | X            | X         |                          |          |                             | Leaflets used for weaving<br>mats, baskets and fish traps                                                |  |

## ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses)   | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                                   |
|----------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|-----------------------------------------------------------------------------------------|
| <b>GRASSES</b>                                     |                                |                       |                          |                      |              |           |                     |          |                             |                                                                                         |
| <i>Acrocer a macrum</i>                            | Zambia                         | X                     |                          | X                    |              | X         | X                   |          |                             | Very palatable hay and<br>pasture grass                                                 |
| <i>Andropogon<br/>amplectens</i>                   | Zambia                         |                       |                          | X                    |              | X         |                     |          |                             | Suitable as a graze only<br>when young                                                  |
| <i>Andropogon gayanus</i>                          | Zambia                         | X                     |                          |                      |              | X         |                     |          |                             | Leafy and palatable when<br>young. Suitable graze for<br>livestock                      |
| <i>Brachiaria brizantha</i>                        | Zambia                         | X                     |                          | X                    |              | X         |                     |          |                             | Softer, more succulent and<br>of better quality for grazing                             |
| <i>Brachiaria serrifolia</i>                       | Africa                         | X                     |                          |                      |              | X         | X                   |          |                             | A leafy and palatable<br>annual grass which is good<br>for grazing                      |
| <i>Chloris gayana</i><br>(Rhodes grass)            | Zambia                         | X                     |                          | X                    |              | X         | X                   |          | X                           | Palatable grass, with good<br>management provides<br>excellent pasture                  |
| <i>Chloris virgata</i>                             | Zambia                         | X                     |                          |                      |              |           | X                   |          |                             | Very palatable for grazing                                                              |
| <i>Cynodon dactylon</i>                            | Zambia                         | X                     |                          | X                    | X            | X         |                     |          | X                           | Very valuable pasture grass.<br>Useful for soil conservation.<br>Useful as a loan grass |
| <i>Dactyloctenium<br/>aegyptium</i><br>(Crowsfoot) | Zambia                         | X                     |                          |                      | X            | X         |                     |          |                             | A leafy and palatable grass,<br>well grazed                                             |
| <i>Dichanthium<br/>papillosum</i>                  | Zambia                         | X                     |                          |                      |              | X         |                     |          |                             | Leafy, thin-stemmed,<br>palatable tussock grass for<br>grazing                          |
| <i>Digitaria<br/>acuminatissima</i>                | Zambia                         | X                     |                          | X                    | X            | X         |                     |          |                             | It is palatable and well<br>grazed by livestock                                         |
| <i>Digitaria milaniana</i>                         | Zambia                         | X                     |                          | X                    | X            | X         |                     |          |                             | A leafy palatable grass<br>which is very well grazed                                    |

*List of key ecological and economic species of Zambia*

| Plant Species<br>(Common name<br>in parentheses)    | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      |              | SOCIO-ECONOMIC FUNCTIONS |                     |          |                             | Reasons for inclusion                                                            |
|-----------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|--------------------------|---------------------|----------|-----------------------------|----------------------------------------------------------------------------------|
|                                                     |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                  |
| <i>Digitaria setivalva</i>                          | Zambia                         | X                     |                          | X                    |              | X                        |                     |          |                             | Very palatable grass which<br>is well grazed by cattle                           |
| <i>Digitaria ternata</i>                            | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Palatable and grazed by stock                                                    |
| <i>Echinochloa<br/>colonum</i>                      | Africa                         |                       |                          | X                    |              | X                        |                     |          |                             | A leafy, soft-stemmed,<br>palatable and useful annual<br>grass for stock grazing |
| <i>Echinochloa holubii</i>                          | Zambia                         | X                     |                          | X                    |              | X                        |                     |          |                             | Very leafy, palatable and<br>well grazed by stock                                |
| <i>Echinochloa<br/>pyramidalis</i>                  | Africa                         | X                     |                          | X                    |              | X                        |                     |          |                             | Very palatable and valuable<br>pasture grass                                     |
| <i>Echinochloa<br/>stagnina</i>                     | Zambia                         | X                     |                          | X                    |              | X                        |                     |          |                             | Very succulent and valuable<br>fodder                                            |
| <i>Eleusine corocana</i><br>(Fingermillet)          | Zambia                         | X                     |                          | X                    | X            | X                        | X                   |          |                             | Highly consumed in<br>Zambia                                                     |
| <i>Eleusine africana</i>                            | Zambia                         | X                     |                          |                      | X            | X                        |                     |          |                             | Eaten by types of livestock                                                      |
| <i>Eleusine indica</i>                              | Zambia                         | X                     |                          |                      | X            | X                        |                     |          | X                           | Used as livestock pasture<br>and loan grass                                      |
| <i>Enteropogon<br/>macrostachyus</i>                | Zambia                         |                       |                          | X                    |              | X                        |                     |          |                             | Leafy and palatable when<br>young                                                |
| <i>Heteropogon<br/>contortus</i><br>(Spear grass)   | Zambia                         |                       |                          | X                    | X            | X                        |                     |          | X                           | Provides reasonable grazing<br>when young. Useful in<br>preventing soil erosion  |
| <i>Hyperbania<br/>filipendula</i><br>(Thatch grass) | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Traditionally important in<br>thatching house roofs                              |
| <i>Panicum coloratum</i>                            | Zambia                         | X                     |                          | X                    |              | X                        | X                   |          |                             | Very useful pasture grass.<br>Some varieties useful for<br>cultivated pasture    |

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      | SOCIO-ECONOMIC FUNCTIONS |           |                     |          |                             | Reasons for inclusion                                                                                                                                    |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------------------|-----------|---------------------|----------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation             | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                                                                                          |
| <i>Panicum maximum</i><br>(Guinea grass)         | Zambia                         | X                     |                          | X                    | X                        | X         |                     |          |                             | Very palatable and valuable<br>pasture grass                                                                                                             |
| <i>Panicum merkeri</i>                           | Zambia                         | X                     |                          | X                    |                          | X         |                     |          |                             | Fairly succulent, leafy and<br>appears to be useful pasture<br>grass                                                                                     |
| <i>Panicum meyeranum</i>                         | Zambia                         | X                     |                          |                      | X                        | X         |                     |          |                             | Useful grazing grass, leafy<br>and palatable                                                                                                             |
| <i>Panicum repens</i>                            | Zambia                         |                       |                          | X                    |                          | X         |                     |          |                             | Palatable and useful grazing<br>grass                                                                                                                    |
| <i>Panicum sabalbidum</i>                        | Zambia                         | X                     |                          | X                    |                          | X         |                     |          |                             | Succulent and leafy<br>palatable grass                                                                                                                   |
| <i>Panicum swynnertonii</i>                      | Zambia                         | X                     |                          | X                    | X                        | X         |                     |          |                             | A leafy pasture grass                                                                                                                                    |
| <i>Paspalum plaiyrrhachis</i>                    | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | A palatable and well-grazed<br>grass                                                                                                                     |
| <i>Paspalum comersonii</i>                       | Zambia                         | X                     |                          | X                    | X                        | X         |                     |          |                             | A palatable and useful<br>grazing grass                                                                                                                  |
| <i>Paspalum polystachyum</i>                     | Zambia                         | X                     |                          |                      | X                        | X         |                     |          |                             | A succulent, leafy grass<br>which seems promising as a<br>pasture species                                                                                |
| <i>Pennisetum polystachyon</i>                   | Zambia                         |                       |                          | X                    |                          | X         |                     |          |                             | A leafy palatable grass                                                                                                                                  |
| <i>Pennisetum purpureum</i><br>(Elephant grass)  | Zambia                         | X                     | X                        |                      | X                        | X         | X                   |          | X                           | Succulent, nutritious and<br>palatable while young.<br>Widely used as a cultivated<br>fodder for grazing and<br>silage mulching and soil<br>conservation |
| <i>Piptostachya inamoena</i>                     | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | Provides reasonable early<br>grazing                                                                                                                     |

*List of key ecological and economic species of Zambia*

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      | SOCIO-ECONOMIC FUNCTIONS |           |                     |          |                             | Reasons for inclusion                                                                                                              |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------------------|-----------|---------------------|----------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation             | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                                                                    |
| <i>Setaria anceps</i>                            | Zambia                         |                       |                          | X                    |                          | X         |                     |          |                             | Succulent, leafy and<br>excellent pasture grass                                                                                    |
| <i>Setaria pallide fusca</i>                     | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | Leafy, palatable and<br>generally well grazed by<br>stock                                                                          |
| <i>Setaria sphecelata</i><br>(African foxtail)   | Zambia                         |                       |                          | X                    |                          | X         | X                   |          |                             | Excellent, leafy and<br>palatable pasture grass.<br>Some varieties used for<br>cultivated pasture and are<br>gaining in popularity |
| <i>Setaria verticillata</i>                      | Zambia                         | X                     |                          |                      | X                        | X         |                     |          |                             | Very leafy and succulent<br>when young. It is well<br>eaten by stock                                                               |
| <i>Sorghum<br/>marchochaeta</i>                  | Zambia                         | X                     |                          |                      | X                        | X         |                     |          |                             | Leafy and grazed by cattle                                                                                                         |
| <i>Sorghum<br/>verticilliflorum</i>              | Zambia                         | X                     |                          |                      | X                        | X         |                     |          |                             | Leafy and eaten by stock                                                                                                           |
| <i>Sporobolus<br/>marginatus</i>                 | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | Well grazed by cattle and<br>game. Indicator species for<br>saline soil conditions                                                 |
| <i>Sporobolus<br/>pyramidalis</i>                | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | The grass is very good as a<br>traditional broom                                                                                   |
| <i>Sporobolus spicatus</i>                       | Zambia                         |                       |                          |                      | X                        | X         |                     |          |                             | It is palatable and well<br>grazed by stock and game                                                                               |
| <i>Trachypogon<br/>spicatus</i>                  | Zambia                         |                       |                          | X                    |                          | X         |                     |          |                             | Provides useful grazing<br>during the early growing<br>season                                                                      |
| <i>Tristachya superba</i>                        | Zambia                         | X                     |                          | X                    | X                        | X         |                     |          |                             | It is grazed when very<br>young                                                                                                    |

## ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                            |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|----------------------------------------------------------------------------------|
| <i>Urochloa bulbodes</i>                         | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | A useful grazing grass during early stages of growth                             |
| <i>Urochloa pullulans</i>                        | Zambia                         | X                     |                          | X                    | X            | X         |                     |          |                             | A very palatable and excellent grazing grass. Also well grazed when dry          |
| <i>Urochloa trichopus</i>                        | Zambia                         |                       |                          | X                    | X            | X         |                     |          |                             | It is a leafy, very palatable grass, well grazed by stock                        |
| <i>Veitiveria nigritiana</i>                     | Zambia                         |                       |                          | X                    | X            | X         |                     |          |                             | Leaves grazed when very young                                                    |
| <i>Vossia cuspidata</i>                          | Zambia                         | X                     |                          | X                    | X            | X         |                     |          |                             | Palatable, well eaten by stock                                                   |
| <b>HERBS</b>                                     |                                |                       |                          |                      |              |           |                     |          |                             |                                                                                  |
| <i>Amaranthus hybridus</i><br>(Pigweed)          | Zambia                         | X                     |                          |                      | X            | X         | X                   |          |                             | Leaves used like spinach. Commercial variety now developed. Medicinal properties |
| <i>Amaranthus spinosus</i>                       | Zambia                         | X                     |                          |                      | X            | X         | X                   |          |                             | Leaves used like spinach                                                         |
| <i>Amaranthus thunbergii</i>                     | Zambia                         | X                     |                          |                      | X            | X         | X                   |          |                             | As above                                                                         |
| <i>Celosia trigyna</i>                           | Zambia                         | X                     |                          |                      | X            | X         |                     |          |                             | Leaves and young shoots cooked and eaten                                         |
| <i>Portulaca oleracea</i>                        | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Leaves cooked and eaten                                                          |
| <i>Cleome gynandra</i>                           | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Widely distributed edible herb                                                   |
| <i>Corchorus iridens</i>                         | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Leaves cooked like spinach                                                       |
| <i>Hibiscus cannabinus</i>                       | Zambia                         |                       |                          |                      | X            | X         | X                   |          |                             | Leaves, flowers and pods cooked for food. Fibre useful in producing sacks        |

*List of key ecological and economic species of Zambia*

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      |              | SOCIO-ECONOMIC FUNCTIONS |                     |          |                             | Reasons for inclusion                                                                                                                                           |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|--------------------------|---------------------|----------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity                | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                                                                                                                                 |
| <i>Hibiscus meesei</i>                           | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Leaves, flowers and pods<br>cooked for food. Fibre<br>useful in producing sacks                                                                                 |
| <i>Hibiscus trionum</i>                          | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | As above                                                                                                                                                        |
| <i>Solanum nigrum</i><br>(Black nightshade)      | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Leaves and ripe fruit are<br>eaten                                                                                                                              |
| <i>Bidens pilosa</i><br>(Black jack)             | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Young plants and leaves of<br>older plants are cooked like<br>spinach                                                                                           |
| <i>Achyranthes aspera</i><br>(Prickly chaff)     | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Treats boils, skin eruptions,<br>colic and snake bite                                                                                                           |
| <i>Datura stramonium</i><br>(Thorn apple)        | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Whole plant is an<br>anaesthetic anodyne and<br>antibelenorragic. Seeds<br>are antispasmodic, narcotic<br>and anodyne                                           |
| <i>Sesamum angolense</i>                         | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | An infusion of plant is<br>remedy for diarrhoea and<br>skin disease. Root powder<br>cures ophthalmia. Decoction<br>of roots and leaves is<br>remedy for measles |
| <i>Gnidia kraussiana</i>                         | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Good remedy for snake<br>bite. Chewed leaves are<br>applied to burns                                                                                            |
| <i>Solanum incanum</i><br>(Bitter apple)         | Zambia                         |                       |                          |                      | X            | X                        |                     |          |                             | Cures chest pain, snakebite,<br>pleurisy and pneumonia,<br>toothache and sore throat                                                                            |

ECOLOGICAL FUNCTIONS      SOCIO-ECONOMIC FUNCTIONS

| Plant Species<br>(Common name<br>in parentheses)   | Region<br>(where<br>important) | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management | Reasons for inclusion                                                                                                              |
|----------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------|-----------|---------------------|----------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <i>Leonotis nepetifolia</i><br>(Pig weed)          | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Whole plant expels tape worms. Cures abdominal troubles, fevers, headache, elephantiasis and amenorrhoea. Leaves are antiasthmatic |
| <i>Elephantopus scaber</i>                         | Zambia                         |                       |                          |                      | X            | X         |                     |          |                             | Possesses medical properties as a cardiac tonic. Treats snake bite. Arrests vomiting                                               |
| <b>MUSHROOMS</b>                                   |                                |                       |                          |                      |              |           |                     |          |                             |                                                                                                                                    |
| <i>Termitomyces letestui</i><br>(Brown cap)        | Zambia                         |                       | X                        | X                    |              | X         |                     | X        |                             | Edible, very highly prized in season                                                                                               |
| <i>Termitomyces titanicus</i><br>(Mushroom giant)  | Zambia                         |                       | X                        | X                    |              | X         |                     |          |                             | Edible, rich source of relish                                                                                                      |
| <i>Termitomyces microcarpus</i>                    | Zambia                         |                       | X                        | X                    |              | X         |                     |          |                             | Edible, well used in season                                                                                                        |
| <i>Termitomyces clypeatus</i>                      | Zambia                         |                       | X                        | X                    |              | X         |                     |          |                             | Edible, very tasty                                                                                                                 |
| <i>Macroilepiota procera</i><br>(Parasol mushroom) | Zambia                         |                       | X                        | X                    |              | X         |                     |          |                             | Edible, excellent flavour                                                                                                          |
| <i>Amanita zambiana</i><br>(Christmas mushroom)    | Zambia                         |                       | X                        | X                    |              | X         |                     |          |                             | Edible, delicious, soft-fleshed                                                                                                    |

*List of key ecological and economic species of Zambia*

| Plant Species<br>(Common name<br>in parentheses) | Region<br>(where<br>important) | ECOLOGICAL FUNCTIONS  |                          |                      | SOCIO-ECONOMIC FUNCTIONS |           |                     |          |                             | Reasons for inclusion                                       |
|--------------------------------------------------|--------------------------------|-----------------------|--------------------------|----------------------|--------------------------|-----------|---------------------|----------|-----------------------------|-------------------------------------------------------------|
|                                                  |                                | Primary<br>Production | Nutrient<br>Accumulation | Habitat<br>Structure | Colonisation             | Commodity | Genetic<br>Resource | Cultural | Environmental<br>Management |                                                             |
| <i>Amanita flammeola</i>                         | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, good alternative<br>relish                          |
| <i>Lactarius kabansus</i>                        | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, widely consumed,<br>sells quickly when in<br>season |
| <i>Lactarius<br/>gymnocarpus</i>                 | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, well consumed                                       |
| <i>Lactarius piperatus</i>                       | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, rich source of<br>relish                            |
| <i>Cantharellus<br/>miniatescens</i>             | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, delicious. Sells<br>fast                            |
| <i>Cantharellus<br/>cibarius</i>                 | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, as above                                            |
| <i>Cantharellus<br/>densifolius</i>              | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, delicious                                           |
| <i>Cantharellus<br/>longisporus</i>              | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | As above                                                    |
| <i>Schizophyllum<br/>commune</i>                 | Central Africa                 |                       | X                        | X                    |                          | X         |                     |          |                             | Edible. Eaten throughout<br>central Africa                  |
| <i>Lentinus cladopus</i>                         | Zambia                         |                       | X                        | X                    |                          | X         |                     |          |                             | Edible, less popular than<br>others                         |

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