Plants are one of the most important species on earth. Its role in the ecosystem, preventing natural disasters, as well as ingredients of many medicines are the reasons for protecting this species. The amount of biodiversity in plants is one of the challenges to maintain biodiversity conservation.

Therefore, we need a way to protect biodiversity, the first step that can be done is to identify plant species. By knowing the identity of the plant, information about the type, origin, benefits, and methods of conservation of the plant can be known later.

Plants have several parts, such as roots, stems, fruits, flowers, and leaves. Identification of plants based on their leaves is more efficient because the leaves are almost there at all times, are easier to reach, and cause less damage to the plant if the leaves are picked.

In this dataset there are pictures of tropical leaves, especially those that can grow in Indonesia. Indonesia was chosen because Indonesia is one of the countries with the greatest biodiversity, ranking 3rd in the world's largest number of tree species based on [1]. Indonesia is also one of the countries that has tropical rain forests. There are 10 plant species contained in this dataset such as: Averrhoa bilimbi (Blimbing Wuluh), Psidium guajava (Jambu Biji), Citrus aurantiifolia (Jeruk Nipis), Ocimum africanum (Kemangi), Aloe vera (Lidah Buaya), Artocarpus heterophyllus (Nangka), Pandanus amaryllifolius (Pandan), Carica papaya (Pepaya), Apium graveolens (Seledri), Piper betle (Sirih). The total dataset is 3500 images. Each species has 350 high-resolution images. Folders are named according to names in Indonesian. Each images have white background. The format for all images is .jpg. In addition, the dimension of each image is 1600 x 1200.

Each leaf picked is from a different plant of the same species which is available in local gardens or purchased at the market. The leaves that were picked were healthy and ripe leaves that were selected to be included in the dataset. The tools used to photograph this leaf are mobile cameras (Model: Xiaomi Redmi Note 7, iPhone 6s, OPPO A7, Samsung A51) and DSLR camera (Model: Canon EOS 650D).

Contributions from the Common Indonesian Leaf Dataset can be used to develop plant identification models using artificial intelligence. By releasing this dataset to the public, we hope to add content to the leaf datasets that have existed before.

References

[1] E. Beech, M. Rivers, S. Oldfield, and P. P. Smith, “GlobalTreeSearch: The first complete global database of tree species and country distributions,” *J. Sustain. For.*, vol. 36, no. 5, pp. 454–489, 2017.