

## 14. *Hopea helferi* (Dyer) Brandis

### Taxonomy and Commercial Grade

Cambodian name	: Koki dek
Scientific name	: <i>Hopea helferi</i> (Dyer) Brandis
Family	: Dipterocarpaceae
Commercial Grade-Cambodia	: 1 <sup>st</sup> Grade

**Distribution and Habitat:** This species has a widespread distribution throughout Southeast Asia. It is often cultivated in the Mekong delta and the Malay Peninsula (Dy Phon, 2002). It is a shade tolerant tree when young, and grows in evergreen forests, usually below 700 m a.s.l. It occurs solitarily or in small groups. The species demands wet and deep soils. In Cambodia, it is found in Stung Treng, Siem Reap, Preah Vihear, Mondulkiri, Kampot and Pursat (Khorn, 2002; see map).

**Gene-Ecological Zones:** Northern Cardamoms (B), Redlands (c), Northwestern Lowlands (D), Central Lowlands (d), Central Annamites (G), Southern Annamites (g).

**Botanical Description:** *Hopea helferi* is a medium-sized tree, 8-25 m high, with round, straight stems and a beautiful form. The wood is rather hard, brown-gray or yellowish-brown in colour, easy to work and rarely splitting (Dy Phon, 2002). It produces simple leaves that are 10-14 cm long and 4-6cm wide (Heang Ponley, 2002, per. comm.).

**Flowering and Fruiting Habit:** Flowers are produced on terminal flowering stalks, and the ovary is naked (Brandis, 1987). The species flowers from January-February and produces mature fruits from March-April (Heang Ponley, 2002, per. comm.).

**Seed Collection:** The seeds of *Hopea helferi* are mature and ready for collection when the wings have turned to a dark brown and the coat has changed from green to yellow. It is important to time the collections of this species carefully, as seeds that are not fully mature have low viability. The fruit is collected directly by climbing the tree, or by shaking the branches over tarpaulins spread on the ground. Collection from the forest floor should be avoided as these seeds have low viability and are often heavily infected by weevils. Fresh seeds have high moisture content and must be kept in loosely folded bags away from the sunlight during transport and temporary storage.

**Seed Handling:** Soon after collection in the field the wings of each fruit must be removed manually; while immature and insect-infected fruits are to be discarded.

**Uses:** This wood is resistant to water and air, and houses constructed from it can last for 7-8 years and boats up to 30 years (Dy Phon, 2000). It is also used to make local carts, handicrafts and cabinets (FA, 2000). Resin is much in demand for the manufacture of varnish (Dy Phon, 2000) and also for making fire-torches for local use.

**Current Status:** Dipterocarp forests in general, and *Hopea Helferi* in particular, are now uncommon due to the over-exploitation and degradation of their habitats. Large populations of this species are now rarely found within forest concession areas. The species often grows in moist forest, and along streams. Thus, when their habitat is destroyed, trees cannot easily regenerate.

In 2002, the second CTSP meeting on the Forest Gene Conservation Strategy defined *Hopea Helferi* (Dyer) Brandis. as a priority species in need of immediate conservation intervention and appropriate protection.

**IUCN Classification:** CR A1cd.

**References:**

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