

LAMU MANGROVE RESTORATION CALENDAR



**A SEASONALITY GUIDE TO MANGROVE SEEDING
AND RESTORATION IN LAMU COUNTY, KENYA**

Acknowledgement

In developing this Lamu Restoration Calendar Guide, Wetlands International has woven a tapestry of indigenous and scientific knowledge, and the priceless experiences from the local communities specifically Pate Resources and Tourism Initiative (PRATI), Lamu, Pandawe and Mkunumbi Community Forest Associations, national government agencies namely Kenya Forest Service (KFS) and Kenya Forest Research Institute (KEFRI), and the County Government of Lamu. We thank them all for their collaboration, partnership and shared commitment.

This Calendar Guide has been developed by Wetlands International staff namely Shawlet Cherono, Elizabeth Wamba, Lilian Nyaega and Priscilla Kagwa who lent depth and creativity, and the map created by Faith Mutwiri, Chief GIS and Remote Sensing Officer, KFS.



Disclaimer: The information in this Restoration Calendar Guide was obtained from Focus Group Discussions with local communities and the aforementioned government authorities, and may not necessarily be comprehensive to cover all mangrove swamps in Lamu County.

All images unless indicated:
Elizabeth Wamba; Priscilla Kagwa / Wetlands International

Why A Restoration Calendar Guide?

Mangroves are one of the high-value wetland ecosystems for both people and nature. Lamu County hosts about 60% of Kenya's mangroves and eight out of the nine species found in the country. These mangroves are part and parcel of the local communities' everyday life - for their livelihoods and provision of other services such as enhancing water quality, controlling erosion, maintaining stream flows, storing carbon and habitat for biodiversity. It is therefore crucial to ensure a balance between the protection and consumption of mangrove ecosystems.

This Lamu Mangrove Restoration Calendar is more than just days and months. It's a journey of restoration; a guide to all mangrove stakeholders, and those fascinated by them, to increase their knowledge of and awareness on Lamu's mangroves. The mangrove species are sequenced according to their natural zonation, from the sea to land, that is beginning with *Sonneratia alba* and ending with the *Xylocarpus* species. All species are also numbered to depict the reproduction from tree to seeds. This guide, therefore, aims to build on the ongoing mangrove restoration efforts in the Lamu Archipelago.

As we restore mangroves in Lamu, we are essentially restoring life itself for the communities living adjacent to these unique forests, and for all mangrove actors in the County and beyond. The Lamu Mangrove Restoration Calendar guide envisions more than just the revival of trees. It envisions the resurgence of livelihoods, resilience and a shared commitment to a healthier planet. It is an impassioned call to action, a luminous beacon guiding us toward restored mangrove ecosystems, and a brighter future for both the people and biodiversity.

Sonneratia Alba

Swahili name: Mlilana/Mpia

Common name: Apple Mangrove



Trees



Buds



Flower



Fruits



Seeds



Natural Seedling

Nursery non-existent in Lamu at time of publishing the Mangrove Calendar.

Rhizophora mucronata

Swahili name: Mkoko

Common name: Red Mangrove



Trees



Buds



Flowers



Seed/Propagule



Natural Seedlings



Potted Seedlings



Nursery

Bruguiera gymnorhiza

Swahili name: Muia

Common name: Orange mangrove



Tree



Buds



Flowers



Seed/Propagule



Natural Seedlings



Potted Seedling



Nursery



Trees

Ceriops tagal

Swahili name: Mkandaa

Common name: Yellow mangrove

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Buds



Flowers



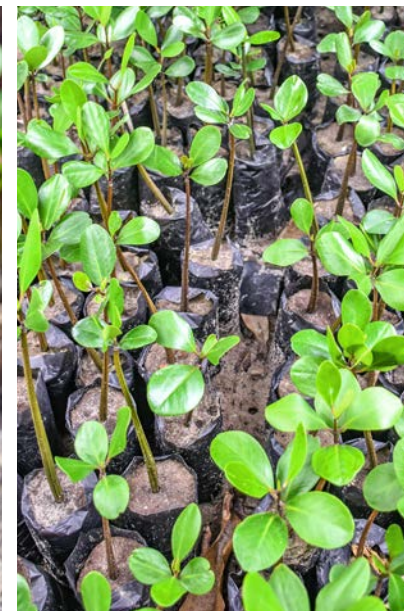
Seeds/Propagules



Natural Seedling

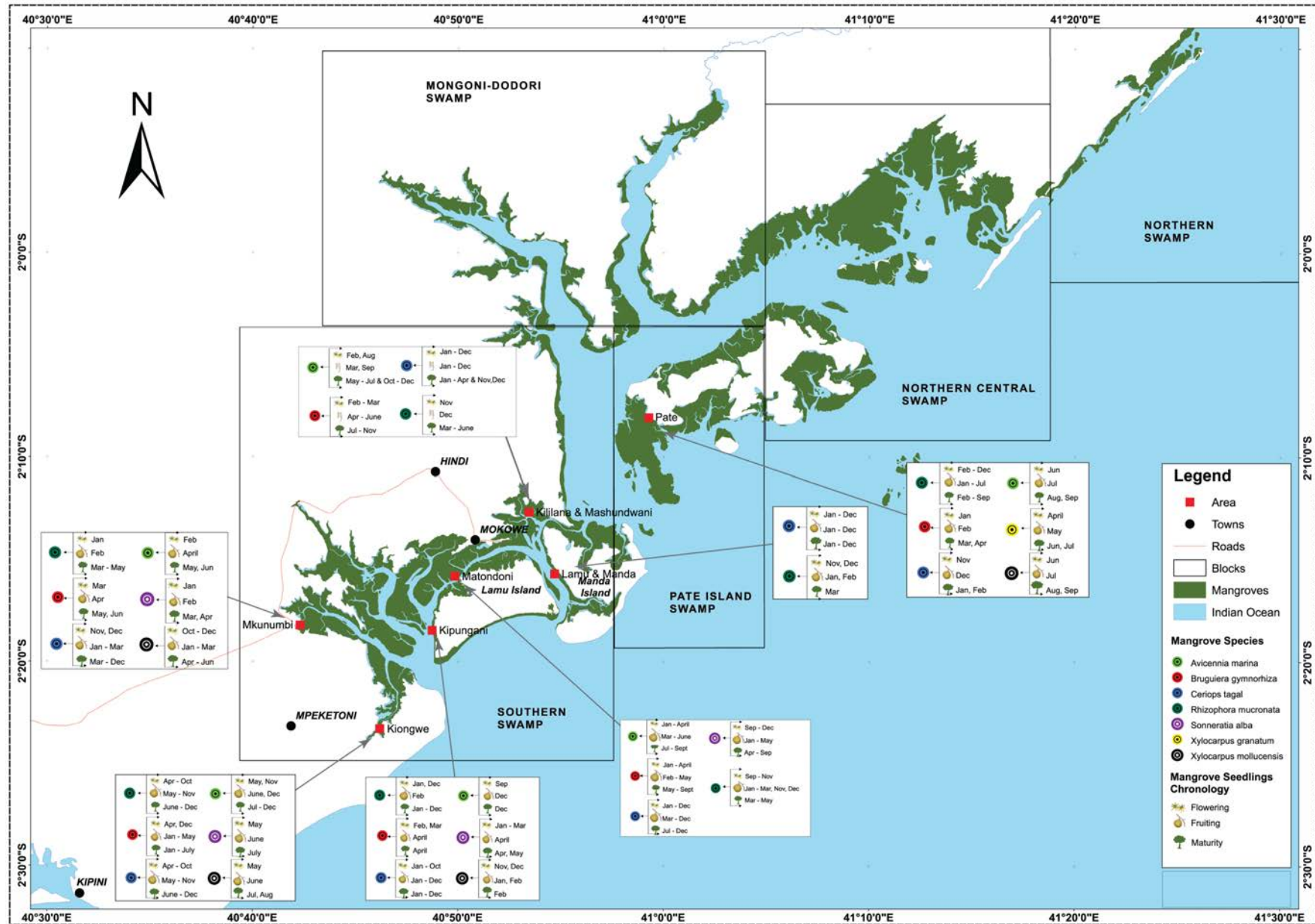


Potted Seedling



Nursery

LAMU MANGROVE SPECIES SEEDLING SEASONS



Avicennia marina

Swahili name: Mchu

Common name: Grey mangrove



Trees



Buds



Flowers



Seeds/Propagules



Natural Seedlings



Potted Seedling



Nursery

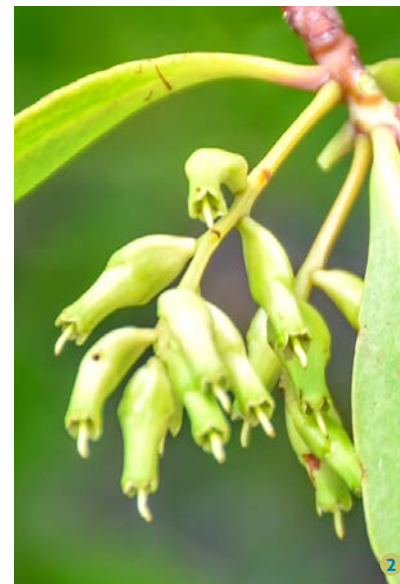
Lumnitzera racemosa

Swahili name: Kikandaa

Common name: White-flowered black mangrove



Tree



Buds



Flowers



Seeds



Natural Seedling

Potted seedling and nursery non-existent in Lamu at time of publishing the Mangrove Calendar.

Xylocarpus granatum

Swahili name: Mkomafi

Common name: Cannonball mangrove



Tree



Buds



Flowers



Fruits



Seeds



Natural Seedlings



Potted Seedling

Nursery non-existent in Lamu at time of publishing the Mangrove Calendar.

Xylocarpus mollucensis

Swahili name: Mkomafi dume

Common name: Cedar mangrove



Tree



Buds

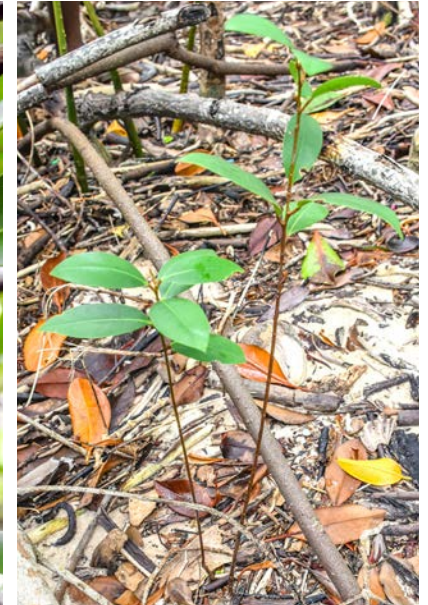


Flowers

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Fruits



Natural Seedlings



Potted Seedling



Seeds and Nursery

Table summary

Lamu Mangrove Species Seedling Seasons

AREA	SPECIES	SEEDLING STATUS	SEASON
Mkunumbi	Sonneratia alba	Flowering	January
		Fruiting	February
		Maturity	March; April
	Rhizophora mucronata	Flowering	January
		Fruiting	February
		Maturity	March-May
	Bruguiera gymnorhiza	Flowering	March
		Fruiting	April
		Maturity	May; June
	Ceriops tagal	Flowering	November; December
		Fruiting	January - March
		Maturity	March - December
	Avicennia marina	Flowering	February
		Fruiting	April
		Maturity	May; June
	Xylocarpus mollucensis	Flowering	October - December
		Fruiting	January - March
		Maturity	April - June
Kiongwe	Sonneratia alba	Flowering	May
		Fruiting	June
		Maturity	July
	Rhizophora mucronata	Flowering	April - October
		Fruiting	May - November
		Maturity	June - December
	Bruguiera gymnorhiza	Flowering	April; December
		Fruiting	January - May
		Maturity	January - July
	Ceriops tagal	Flowering	April - October
		Fruiting	May - November
		Maturity	June - December
	Avicennia marina	Flowering	May; November
		Fruiting	June; December
		Maturity	July - December
	Xylocarpus mollucensis	Flowering	May
		Fruiting	June
		Maturity	July; August
Kipungani	Sonneratia alba	Flowering	January - March
		Fruiting	April
		Maturity	April; May
	Rhizophora mucronata	Flowering	December; January
		Fruiting	February
		Maturity	December - January
	Bruguiera gymnorhiza	Flowering	February; March
		Fruiting	April
		Maturity	April
	Ceriops tagal	Flowering	January - October
		Fruiting	January - December
		Maturity	January - December
	Avicennia marina	Flowering	September
		Fruiting	December
		Maturity	December

AREA	SPECIES	SEEDLING STATUS	SEASON
Matondoni	Xylocarpus mollucensis	Flowering	November; December
		Fruiting	January; February
		Maturity	February
	Sonneratia alba	Flowering	September - December
		Fruiting	January - May
		Maturity	April - September
	Rhizophora mucronata	Flowering	September - November
		Fruiting	January - March; November - December
		Maturity	March - May
	Bruguiera gymnorhiza	Flowering	January - April
		Fruiting	February - May
		Maturity	May - September
	Ceriops tagal	Flowering	January - December
		Fruiting	March - December
		Maturity	July - December
	Avicennia marina	Flowering	January - April
		Fruiting	May - June
		Maturity	July - September
Lamu and Manda	Rhizophora mucronata	Flowering	November; December
		Fruiting	January; February
		Maturity	March
	Ceriops tagal	Flowering	January - December
		Fruiting	January - December
		Maturity	January - December
Kililana and Mashundwani	Rhizophora mucronata	Flowering	November
		Fruiting	December
		Maturity	March - June
	Bruguiera gymnorhiza	Flowering	February - March
		Fruiting	April - June
		Maturity	July - November
	Ceriops tagal	Flowering	January - December
		Fruiting	January - December
		Maturity	January - April; November; December
	Avicennia marina	Flowering	February; August
		Fruiting	March; September
		Maturity	May - July; October - December
Pate	Rhizophora mucronata	Flowering	February - December
		Fruiting	January - July
		Maturity	February - September
	Bruguiera gymnorhiza	Flowering	January
		Fruiting	February
		Maturity	March; April
	Ceriops tagal	Flowering	November
		Fruiting	December
		Maturity	January; February
	Avicennia marina	Flowering	November
		Fruiting	July
		Maturity	August; September
	Xylocarpus granatum	Flowering	April
		Fruiting	May
		Maturity	June; July
	Xylocarpus mollucensis	Flowering	June
		Fruiting	July
		Maturity	August; September



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