

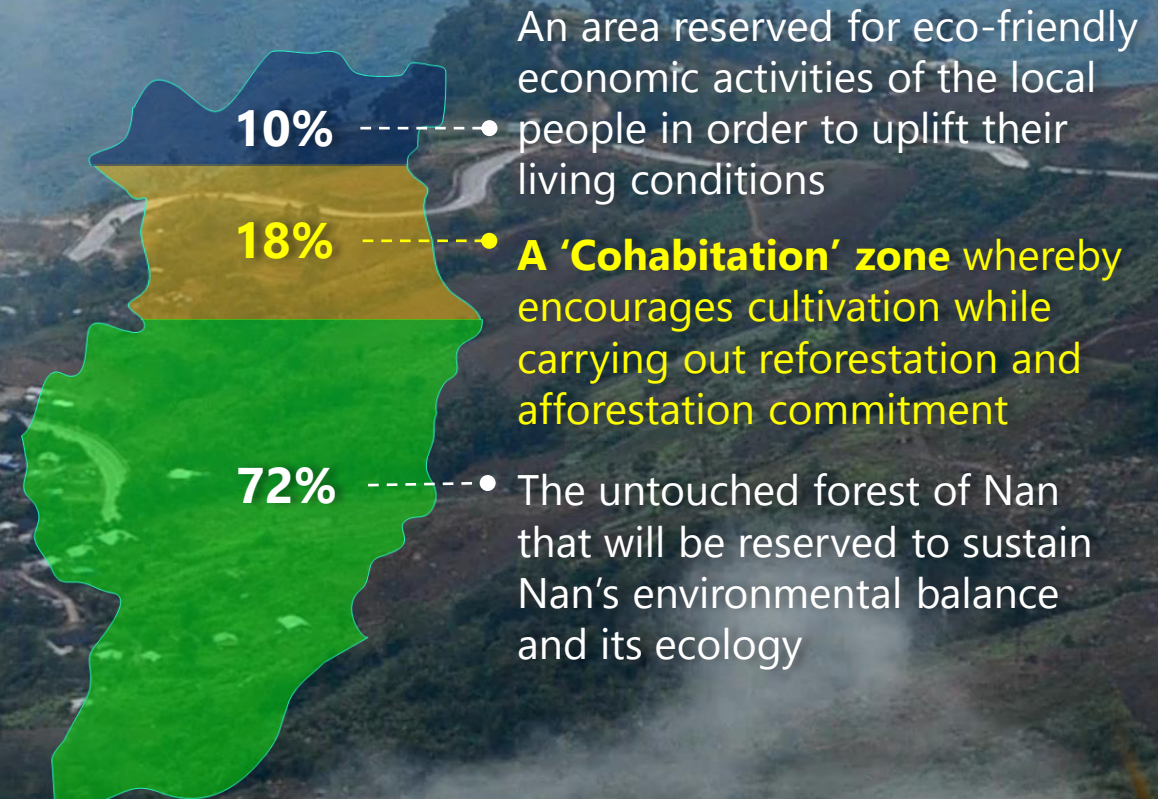
**Nature-based Solution (NBS)** allows cohabitation between humans and nature, restores Nan forest, and creates new economic opportunities for good health and well-being of the society

## Nan Sandbox

Cohabitation of human and forest

- **Nan** is a Northern province of Thailand
- **7,436 KM<sup>2</sup>** (Approx. 85% of Nan Province) of Nan is a **preserved headwater forest that** contributes 40% of the waters that make up the Chao Phraya River.
- **Today, Nan has lost 28% of the preserved forest due to illegal agricultural expansion**

Hence, if we need to save the environment, we must also save the people who live within it





KAI has pledged to add value to the local wisdoms through commercialization and commoditization processes, thus creating highly marketable agricultural and healthcare products



Kasikornthai  
Foundation

ธนาคารกสิกรไทย  
开泰银行 KASIKORNBANK



Moving from carbohydrate-based to high economic value of **Medicinal Plants** and new business opportunities



### Agro-produce

- Local wisdoms
- Irrigation officers



### Pharmaceutical active ingredients

- Packaging designers
- Marketing & distribution experts

### Processed agricultural products

- Food & pharma specialists
- Manufacturing standards

Product  
Value



# Uplifting agricultural and healthcare sectors—shifting from carbohydrate-based to high value **Medicinal Plants** to create new business opportunities

**Turmeric**

**Thai: Kha-Minh**

Treat stomach ulcers and inflammatory diseases



**Andrographis paniculata**

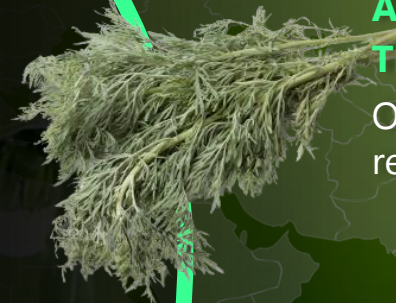
**Thai: Fa Thalai Djonne**

Anti-inflammatory, useful to fight respiratory infections

**Artemisia Annua**

**Thai: โกรฐจุฬาลัมพา**

One of the most potent remedies against Malaria



## Medicinal Plants

**Cissus Quadrangularis**

**Thai: Pet Sang Kart**

Accelerate the healing of fractured bones



**Centella Asiatica**

**Thai: Bow Bok**

Brain tonic stimulates intelligence and memory





# New E2E Cross-Sectoral Value Chain

To create Value Added from “Plants” to “Medicines” with Scientific Evidence



## Plant Discovery

Nan medicinal plant wisdom and native medicinal plant discovery

## Clinical Trials

Scientifically proven efficacy by schools of medicine with GCP

## Pilot Extraction

From phytomass to high quality extract and with competitive extraction cost

## Drug Development

Extract as Natural Active Pharmaceutical Ingredients (NAPI) to be formulated into nutraceutical, cosmeceutical, and ultimately pharmaceutical products

## Pharma-agroforestry

From genetics and growing environment to high medicine-grade NAPI yield phytomass

## Knowhow Transfer

Grow-Extract-Production knowhow commercialization to realize value added for Nan community





**First POC**  
**Shade-grown Medicinal Plant**



# 'Nan Sandbox' is corresponding with 5 SDGs of the United Nations

## 1 NO POVERTY



Sustainable income to Solve poverty, the root Cause of deforestation

## 3 GOOD HEALTH AND WELL-BEING



Lessen no. of illness from water & soil pollution with medicinal grade plantation

## 5 GENDER EQUALITY



## 6 CLEAN WATER AND SANITATION



## 13 CLIMATE ACTION



Reforestation to increase CO2 absorption, prevent floods and droughts

## 15 LIFE ON LAND



Reforestation to rebalance the ecosystem of life on land

## 17 PARTNERSHIPS FOR THE GOALS



Uniquely combined

- Government agencies
- Academic Institutions
- Local communities
- Charities
- Private Enterprises

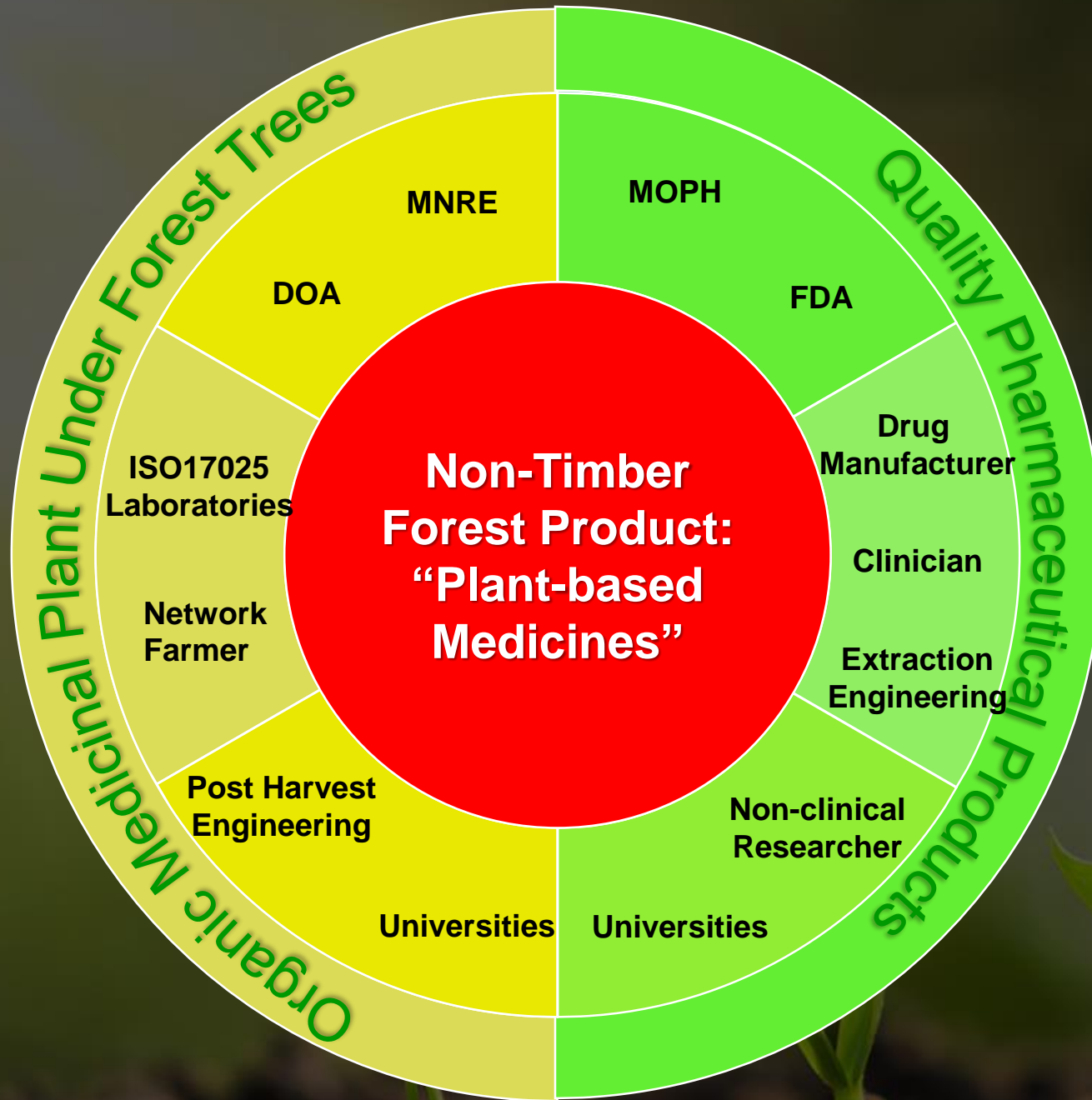
As one team





# Nan One Health





**To transform low-value deforesting corn into high-value Non-Timber Forest Products needs cross-sectoral collaboration**

To achieve this, we must share

- Same passion
- Compatible speed
- Companion leadership
- Cheerful Respect