

AI-04680 Project-Farming in Leyte

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#project

How does corn farming in the USA works? There are no humans? How do the watering, planting, maintenance, harvest is done. I have an acres of land in Leyte Philippine under farmed. Create a comprehensive plan from start to finish to copy American farming.

List similar project information and planning on Rice and Coffee Farming.

List all the capex for my Leyte Farming Project. My parents had a working Rice and Corn Mill in Merida, Leyte since 1940. We have lands in several locations. I am a retiree 60 yom with enough funds to deploy any possible farming scenario. Create a shopping list. Land is also there just waiting. I have a house to live in Merida, Leyte. I just need guidance on what to do with those under-utilized land resources.

Build a 10-year Leyte Agricultural Plan

Yes—but the important insight is that **American corn farming is not “a farmer doing everything with machines.” It is a highly organized production system in which humans make decisions and machines perform repetitive work.**

And you can absolutely adapt the *system* to your **1-acre farm in Leyte**. You should **not** copy the giant American machines themselves.

The photo you showed is a good example of the American model: large field, straight rows, prepared soil, huge equipment access, electrical infrastructure, and very little visible human labor.









us The American Corn-Farming System

Think of a modern corn farm as a **production pipeline**:

SOIL → PLANT → FEED → PROTECT → WATER → MONITOR → HARVEST → DRY → STORE/SELL

The farmer is essentially the **farm manager/operator**.

A large U.S. corn farmer may manage hundreds or thousands of acres because tractors, planters, sprayers, combines, GPS and grain-handling equipment replace enormous amounts of manual labor. Precision agriculture increasingly uses GPS guidance, yield maps, soil information and variable-rate application. ([Economic Research Service](#))

But here's the key:

You don't need American-scale equipment to use the American system.

For your 1 acre, I would build a **"small American farm"** using hired/custom machinery, small equipment, irrigation automation and careful record keeping.

1. First: Your 1 Acre Is Actually 0.405 Hectare

This matters because almost all Philippine agricultural recommendations are expressed per hectare.

Measurement	Your farm
Acres	1.00
Hectares	0.405 ha

Square meters	4,047 m ²
75-cm row spacing	~54 rows if perfectly laid out
20-cm plant spacing	roughly 27,000 planting positions/acre

The Philippine DA's basic corn guide recommends approximately **75-cm rows**, with hybrid corn commonly planted around **20 cm between hills**, although the exact recommendation depends on the hybrid. (ATI Central Office)

So your acre is small by American standards—but **large enough to be a very interesting demonstration farm**.

2. Don't Start by Planting Corn

Your first crop is actually:

LAND REHABILITATION

Because you said the land has been under-farmed.

Before buying seed, determine:

A. Soil

Get a proper soil analysis for:

- pH
- nitrogen
- phosphorus
- potassium
- organic matter
- calcium
- magnesium
- sulfur
- micronutrients

This is particularly important because **fertilizer should be based on your field rather than blindly copying a U.S. fertilizer recipe**.

The Philippine DA/ATI is actually moving toward this type of site-specific nutrient management. The Nutrient Expert for Maize Philippines (NEMPh) provides recommendations based on local conditions, including fertilizer rates and planting density. (ATI Central Office)

There is even a **Leyte corn fertilizer-guide map** from the Bureau of Soils and Water Management. (BSWM)

B. Drainage

This is particularly important in Leyte.

American corn farmers worry enormously about water—but they worry about **too much water as well as too little**.

Corn does not like sitting in water.

So before irrigation, ask:

Where does rainwater go?

Your farm should have:

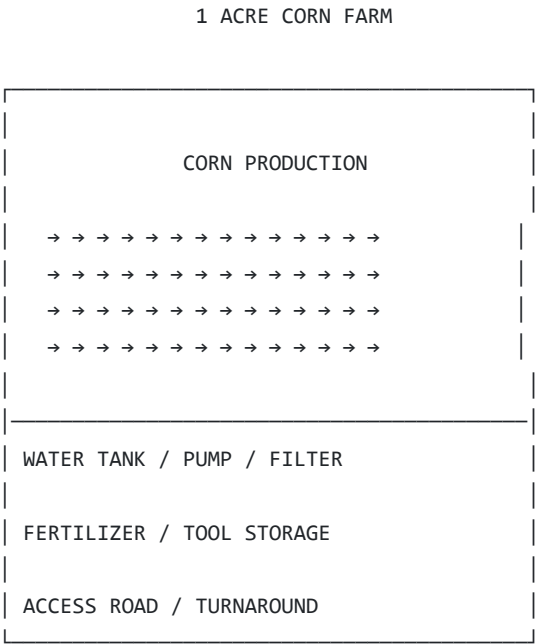
field → drainage ditch → collection/outlet

rather than:

field → puddle → drowned roots

3. Build the Farm Like a Small Factory

I would divide your acre into functional zones.



Make the field easy for equipment and people to enter.

Straight rows are extremely valuable.

Not because corn cares about straight lines—but because **machines care**.

4. American Step #1 — Soil Preparation

In the U.S., this might involve:

tractor → chisel plow → disc → field cultivator → planter

You don't need all of that.

For your acre:

Phase 1 — Clear

Remove:

- brush
- unwanted trees
- old roots
- trash
- large rocks

- invasive vegetation

Phase 2 — Test

Soil sample.

Phase 3 — Correct

Apply lime if required by soil analysis.

Apply organic material if useful.

Phase 4 — Mechanically prepare

Hire a local tractor/operator to:

1. plow
2. harrow/disc
3. level
4. create planting rows/furrows

The Philippine DA guide recommends plowing when soil moisture is appropriate and establishing furrows around **75 cm apart**. ([ATI Central Office](#))

5. American Step #2 — Choose the Seed

This is one of the most important decisions.

Don't simply ask:

"What is the highest-yield corn?"

Ask:

"What corn can I grow reliably in this exact location and what will somebody buy?"

You have two major directions:

Yellow hybrid corn

Generally oriented toward:

- livestock feed
- poultry feed
- commercial grain markets

White corn

More commonly associated with:

- human food
- corn grits
- local consumption

The Philippines has extensive hybrid corn trials, and modern hybrids can produce substantially more than traditional open-pollinated varieties under suitable conditions. For example, recent DA trials in other regions have reported hybrid yields in the ~6–10+ t/ha range, but **do not assume those yields will occur on your Leyte acre**. Variety × soil × weather × management determines actual yield. ([Department of Agriculture](#))

For your first crop, I would choose **one proven hybrid recommended locally by DA/LGU agriculture technicians and available seed suppliers**, rather than chasing the theoretical maximum-yield variety.

6. Planting — This Is Where You Start Copying America

A U.S. planter essentially performs several operations simultaneously:

open soil → place seed → place fertilizer → cover seed → establish exact spacing

You can do the same.

PHilMech actually has a **pneumatic corn planter** designed for Philippine conditions.

Its specifications include:

- 65–75 cm row spacing
- 15–30 cm hill spacing
- 5–10 cm planting depth
- fertilizer metering
- approximately 2.5 ha/day capacity
- designed for a 35-hp tractor. ([PhilMech](#))

That's a perfect example of adapting American-style mechanization to the Philippines.

But don't buy one for your acre.

Hire somebody who owns one.

This is extremely important.

7. Your Farm Should Be "Machine as a Service"

Instead of:

YOU → buy tractor

do:

YOU → hire tractor

Instead of:

YOU → buy planter

do:

YOU → hire planter

Instead of:

YOU → buy combine

do:

YOU → hire harvesting service

This is actually more rational for a 1-acre farm.

PHilMech has specifically noted that large machinery is often unsuitable for Philippine smallholdings and has promoted smaller machinery appropriate to small farm sizes. ([PhilMech](#))

8. Planting Day

Your ideal planting operation:

Morning

Tractor/planter arrives.

Operation

TRACTOR
↓
PLANTER
↓
SEED + FERTILIZER
↓
75-cm ROWS
↓
UNIFORM DEPTH
↓
UNIFORM EMERGENCE

Your goal is not:

"Get seeds into the ground."

Your goal is:

Create a uniform biological factory.

Every plant should have approximately the same:

- spacing
- depth
- nutrition
- sunlight
- water

That's one of the secrets of modern corn production.

9. Days 1–7 — Don't Do Much

This is where inexperienced farmers can make things worse.

Monitor:

- germination
- missing plants
- insects
- standing water
- weeds
- birds/rodents

Do not automatically spray something just because you see an insect.

Modern agriculture uses **integrated pest management**—monitor first, then intervene when necessary.

10. Days 7–20 — Establishment

Now you're managing:

Plant population

Remove severely overcrowded plants if necessary.

Weeds

This is critical.

Corn loses productivity if weeds compete for:

- water
- nutrients
- sunlight

The Philippine corn guide recommends monitoring pests from early emergence and shallow cultivation around the two-week stage where appropriate. ([ATI Central Office](#))

11. Fertilization — Don't Copy an American Recipe

This is one area where I strongly recommend **NOT** copying the U.S.

Instead:

Soil test

↓

NEMPh / local recommendation

↓

Calculate requirement for 0.405 ha

↓

Apply precisely

The Philippine DA's Nutrient Expert system was specifically developed to generate maize fertilizer recommendations using local conditions and the 4R principles:

Right source

Right rate

Right time

Right place ([ATI Central Office](#))

That's actually very close to modern American precision farming.

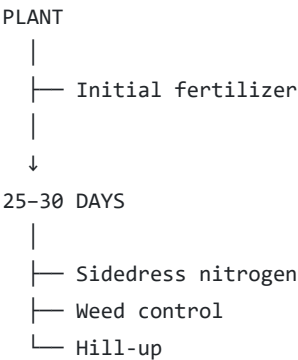
12. The Second Fertilizer Application

The Philippine guide generally calls for additional nitrogen around:

25–30 days after planting

with the fertilizer placed beside the plants rather than directly against them, followed by hilling-up. ([ATI Central Office](#))

Your field schedule becomes:



13. WATER — THIS IS WHERE AMERICAN FARMING LOOKS VERY DIFFERENT

People often assume:

"American corn = irrigation."

Not necessarily.

A significant amount of U.S. corn is rain-fed; irrigation varies dramatically by region. USDA data show irrigation is concentrated geographically rather than being universal. ([Economic Research Service](#))

Your Leyte farm has the opposite potential problem:

TOO MUCH WATER.

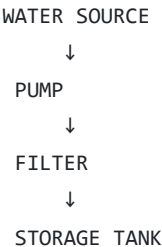
So your irrigation system should really be:

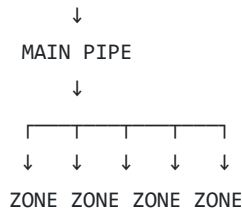
WATER MANAGEMENT SYSTEM

not simply irrigation.

14. Your 1-Acre Irrigation System

I would build:





For one acre, I'd favor a **portable sprinkler/furrow system** rather than a center pivot.

A center pivot is beautiful on a 100+ acre American farm.

On one acre:

ridiculous.

You want inexpensive, modular equipment.

15. When Do You Water?

The Philippine corn production guide identifies several critical irrigation points, including approximately:

- 12–15 days
- 25–30 days
- 40–45 days
- 55–60 days
- 70–75 days

when irrigation is needed. ([ATI Central Office](#))

But in Leyte:

Rainfall determines whether you actually need irrigation.

Use soil moisture as the decision variable.

Your farm should have:

Rain gauge

Very inexpensive.

Soil moisture monitoring

Even inexpensive sensors can give you useful information.

Eventually you can make:

RAIN → SENSOR → PUMP

instead of:

FARMER → GUESS

That's the American mindset.

16. Days 30–60 — The "Factory" Is Running

Now the corn is rapidly accumulating biomass.

Your job becomes:

Weekly inspection

Walk the entire field.

Don't just look at the first 10 plants.

Inspect:

- edge
- middle
- corners
- wet areas
- dry areas

Look for:

- leaf damage
- discoloration
- lodging
- fungal disease
- corn borer
- armyworm
- weeds
- nutrient deficiency
- water stress

The DA recommends weekly monitoring of pest populations and natural enemies. (ATI Central Office)

17. This Is Where Technology Becomes Useful

You don't need a \$30,000 agricultural drone.

Your phone can become your farm computer.

Create a simple spreadsheet:

Date	DAP	Rain	Irrigation	Fertilizer	Pest	Weed	Action
Day 0	0	—	—	Base	None	—	Plant
Day 7	7	20mm	No	—	Low	Low	Monitor
Day 14	14	5mm	Yes	—	Medium	Medium	Weed
Day 28	28	10mm	No	N	Low	Low	Sidedress
Day 45	45	3mm	Yes	—	Low	Low	Inspect

Now you are running a **data-driven farm**.

18. American Step — GPS

You don't need a \$20,000 GPS guidance system.

For one acre:

measure once → establish permanent reference points → maintain the same rows.

Even a basic measuring wheel, stakes and string can give you surprisingly straight rows.

Eventually:

phone GPS + farm map + drone imagery

can provide enough information for a small experimental farm.

Precision agriculture's fundamental concept is **applying different inputs according to actual field conditions**, rather than treating the entire field identically. ([NSF - U.S. National Science Foundation](#))

19. Harvest

This is where the American system becomes dramatically different.

A U.S. farmer doesn't generally walk through the field picking individual ears.

A **combine harvester**:

```
graph TD
    A[CUTS] --> B[REMOVES EARS]
    B --> C[SHELLS KERNELS]
    C --> D[SEPARATES GRAIN]
    D --> E[CLEANS GRAIN]
    E --> F[STORES GRAIN]
    F --> G[DISCHARGES INTO TRUCK]
```

PhilMech also has corn harvesting, planting and shelling technologies designed for Philippine conditions. ([PhilMech](#))

For your acre:

DO NOT BUY A COMBINE.

Hire one—or use manual harvesting if the economics favor it.

20. Post-Harvest Is Extremely Important

This is one of the biggest differences between:

"I grew corn."

and

"I operate a profitable corn business."

Wet corn is a problem.

You need:

HARVEST → SHELL → DRY → TEST MOISTURE → STORE/SELL

PhilMech describes systems that dry corn through stages and ultimately bring grain to approximately **14% moisture** for storage. ([PhilMech](#))

A moisture meter is therefore one of the first pieces of equipment I'd buy.

Not a tractor.

Not a combine.

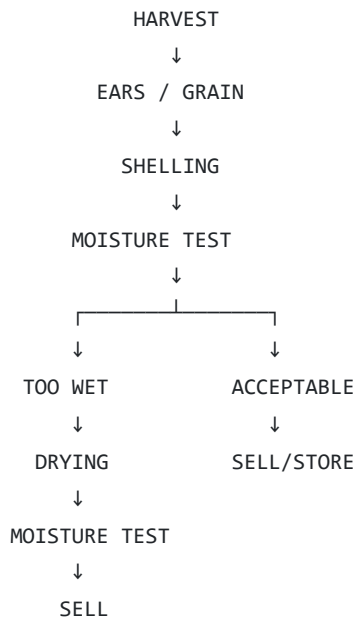
Buy:

grain moisture meter

instead.

21. Your Post-Harvest System

For your one acre:



For a small farm, you could use:

- solar drying when weather cooperates
- mechanical drying through a cooperative/service provider
- rented sheller
- rented dryer
- local buyer

PhilMech has documented the importance of mechanical drying because wet-season sun drying can create quality and economic problems. ([PhilMech](#))

22. What I Would Actually Build on Your Leyte Acre

Here's the interesting part.

I wouldn't try to recreate a Nebraska farm.

I'd build:

"AMERICAN PRECISION FARM — LEYTE EDITION"

Infrastructure

1 acre

↓

drainage

↓

water source

↓

pump

↓

tank

↓

irrigation

↓

farm access

↓

straight permanent rows

23. Equipment Strategy

OWN

I would consider owning:

- backpack sprayer
- pressure washer
- basic hand tools
- machete/bolo
- pruning tools
- weighing scale
- rain gauge
- soil sampling tools
- grain moisture meter
- PPE
- smartphone/tablet
- farm log system
- small water pump if economically useful

RENT / HIRE

Don't own:

- tractor
- plow
- harrow
- corn planter
- combine
- sheller
- industrial dryer

Hire them.

This is **asset-light agriculture**.

24. The Farm's Human Labor Model

You asked:

"There are no humans?"

There absolutely are.

But the human's job changes.

Traditional farmer

DO EVERYTHING



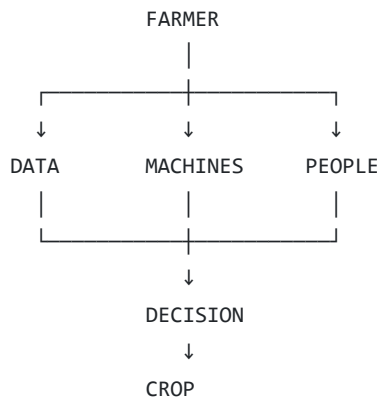
LABOR

LABOR

LABOR

LABOR

Modern farmer



The farmer becomes more like:

CEO + agronomist + equipment manager + weather analyst + accountant.

25. Your One-Acre Operating Calendar

Here's the version I'd use.

Period	Operation
Pre-season	Soil test
	Clear land
	Repair drainage
	Establish water supply
	Select market
	Select hybrid
	Contract machinery
Week 0	Plow/harrow
	Fertilizer application according to recommendation
	Plant
Week 1	Check emergence
	Check pests
	Check waterlogging
Week 2	Weed management
	Plant population check
	Irrigate if needed
Week 3–4	Fertilizer sidedress
	Hill-up
	Weed control
Week 4–6	Weekly pest/disease scouting
	Water management
Week 6–9	Critical crop-growth period
	Water/nutrient monitoring
	Pest management
Week 9–12	Maturity monitoring
	Prepare harvesting service
	Arrange buyer
Harvest	Harvest
	Shell
	Dry
	Moisture test
	Weigh
Post-harvest	Sell/store

	Record yield
	Calculate profit
	Analyze problems
Next cycle	Improve

Actual crop duration depends heavily on the hybrid and local conditions.

26. The Most Important Part: Measure Everything

At the end of every crop, calculate:

Yield

kg harvested / acre

Revenue

kg × selling price

Costs

- seed
- fertilizer
- pesticide
- land preparation
- planting
- irrigation
- labor
- harvesting
- shelling
- drying
- transportation

Then:

Net profit

Revenue – total cost

And most importantly:

Cost per kilogram

That number tells you whether you are becoming a real farmer or merely growing corn.

27. Your Farm Becomes an Experiment

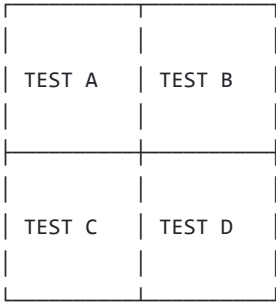
I would actually go one step further.

Because you have only one acre, don't treat it merely as a production farm.

Treat it as a:

Corn Technology Demonstration Farm

Divide it into perhaps four sections.



For example:

- A:** standard local practice
- B:** precision fertilizer
- C:** improved irrigation management
- D:** best combined system

Now you can compare.

That is much more valuable than simply asking:

"How many sacks did I get?"

28. And Leyte Is Actually a Good Place to Learn This

There is already significant government agricultural infrastructure around corn in Eastern Visayas.

ATI Region 8 has conducted site-specific maize nutrient-management training at **VSU in Baybay, Leyte**, including Nutrient Expert for Maize Philippines. ([ATI Central Office](#))

DA Region 8 also conducted a 16-week Farmer Field School for sustainable corn production in **Abuyog, Leyte** in 2025. ([EV Regional Office](#))

And very recently, in **July 2026**, PHilMech held a technology briefing in **Abuyog, Leyte**, demonstrating technologies including a pneumatic corn planter and other agricultural machinery. ([PhilMech](#))

That is particularly interesting for you because it means you don't have to invent this system from scratch.

29. The Biggest Mistake I Would Avoid

Don't do this:

"I have one acre, so I'll buy a tractor and all the American equipment."

That is backwards.

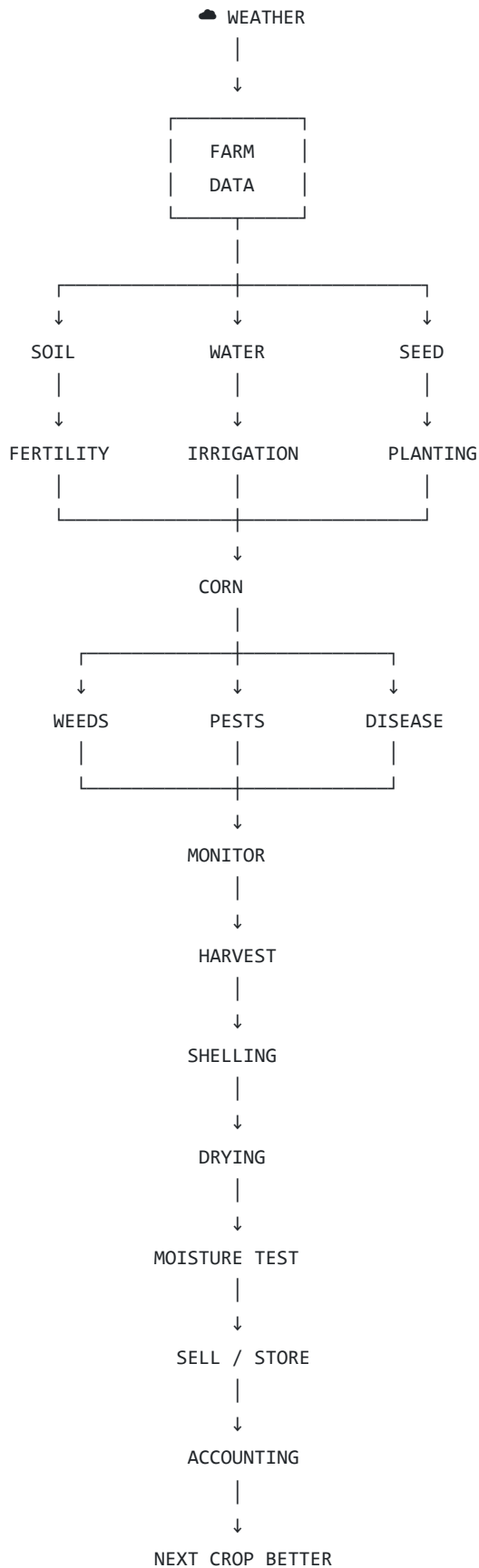
Do this:

"I have one acre, so I'll create an American-style production system and outsource capital-intensive operations."

That's much smarter.

30. Your "American Farming" Architecture

If I were designing your Leyte farm, the complete system would look like this:



That is the real lesson from the American farm.

31. My Recommended First-Year Strategy for Your Acre

I would **not** attempt maximum production immediately.

Crop #1

Objective: establish the system.

1. Survey the land
2. Soil test
3. Fix drainage
4. Determine water source
5. Select local hybrid
6. Find buyer **before planting**
7. Hire tractor
8. Mechanically prepare land
9. Mechanically plant if available
10. Use site-specific fertilizer recommendation
11. Install simple irrigation
12. Scout weekly
13. Record everything
14. Hire harvest equipment
15. Dry properly
16. Measure moisture
17. Sell
18. Calculate exact economics

Then crop #2 becomes a **data-driven improvement**.

The really interesting opportunity

Because you have only **one acre**, you can make this much more sophisticated than a conventional small Philippine farm.

You could eventually have:

soil sensors + rain gauge + irrigation pump + weather data + phone dashboard + farm camera + crop records + fertilizer records + yield records + Google Sheets + automated alerts.

In other words:



A 1-acre precision-agriculture laboratory in Leyte.

And that's actually closer to the *spirit* of modern American farming than simply buying a tractor.

The Philippines itself is already moving toward this model: DA/ATI promotes site-specific nutrient management, PHilMech has developed small-scale corn machinery, and Region 8 is actively demonstrating modern corn-production technologies in Leyte. (ATI Central Office)

If you give me the exact municipality/barangay in Leyte, the approximate shape/slope of the acre, whether there is a nearby water source, and whether you want yellow feed corn or white food corn, I can take this one level deeper and

design the actual 1-acre Leyte farm: field layout, row count, irrigation layout, planting density, equipment to rent vs. buy, crop calendar, fertilizer decision process, labor plan, harvest/post-harvest workflow, and a first-year ₱ budget/profit model.

Give me a similar plan for rice farming.

Absolutely. Rice is actually an **even better example of how to copy the American farming philosophy without copying American farm size.**

For your **1-acre (~0.405 ha) under-farmed property in Leyte**, I would design a **small, mechanized, data-driven rice farm** rather than the traditional labor-intensive approach.

I'm going to assume your acre is **reasonably flat and potentially suitable for lowland palay**. If it is sloped/upland rice land, the system changes substantially.









The U.S. rice farmer essentially runs a **grain factory outdoors**:

LAND → LEVEL → SEED → FERTILIZE → WATER → CONTROL WEEDS/PESTS → HARVEST → DRY → STORE/SELL

The farmer doesn't personally perform every operation.

Instead:

The farmer owns/manages the production system and hires specialized machinery when ownership doesn't make economic sense.

That's exactly what I'd recommend for your one acre in Leyte.

1. First: Your 1 Acre

Your farm:

Measurement	Area
Acre	1.00
Hectare	0.405 ha
Square meters	4,047 m ²

Don't think of it as "a small rice field."

Think:

4,047 m² experimental precision-rice farm

That changes how we approach it.

2. The Biggest Difference From Corn

Corn can tolerate relatively dry soil.

Rice is fundamentally a **water-management crop**.

So your first question isn't:

"What rice seed should I buy?"

It's:

"Can I reliably control water on this acre?"

You need both:

WATER IN

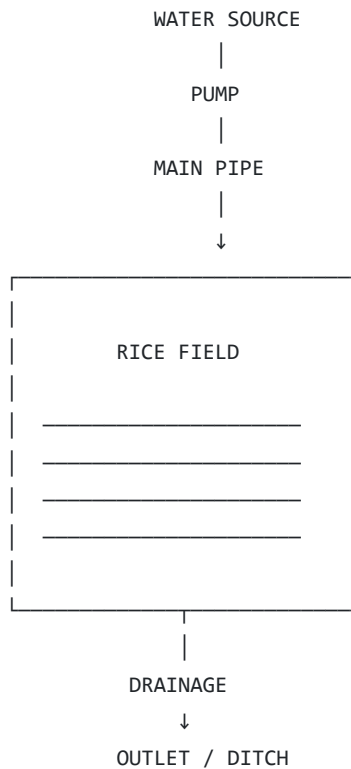
and

WATER OUT

That second one is extremely important in Leyte.

3. Your Rice Farm Needs a Hydraulic System

I'd design the field approximately like this:



The field should be divided into manageable water-control sections using **bunds/dikes**.

PhilRice emphasizes that good leveling improves water distribution, reduces water requirements, suppresses weeds and promotes more uniform crop maturity. ([PhilRice](#))

4. Don't Start With Rice

Just as with your corn plan:

Your first crop is LAND REHABILITATION.

Before planting:

Step 1

Survey the acre.

Step 2

Determine elevation.

Step 3

Determine where water enters.

Step 4

Determine where water leaves.

Step 5

Repair/create field dikes.

Step 6

Repair drainage.

Step 7

Test soil.

Step 8

Determine whether irrigation is actually available.

Only then do you select the production method.

5. Soil Test

Get a proper soil analysis.

At minimum:

- pH
- N
- P
- K
- organic matter
- micronutrients where appropriate

Don't copy a fertilizer recipe from Arkansas.

Don't copy one from another Philippine province either.

Instead:

SOIL TEST → RICE CROP MANAGER / LOCAL RECOMMENDATION → FERTILIZER PLAN

PhilRice specifically recommends soil analysis, MOET, leaf-color monitoring and Rice Crop Manager for determining nutrient requirements. ([PhilRice](#))

6. The American Trick: Level the Field

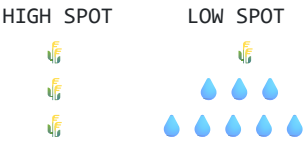
This may be one of the **highest-value improvements** you can make.

American rice farms often use highly accurate land leveling because water must behave predictably.

Your objective:

When you put 3 cm of water into the field, it should be approximately 3 cm everywhere.

Not:



You want:

~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Uniform water depth.

PhilRice specifically notes that proper leveling results in more uniform water distribution and lower water requirements. (PhilRice)

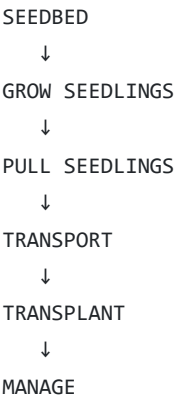
For your acre, **hire leveling equipment rather than buying it.**

7. Your First Major Decision: Transplant or Direct Seed?

This is where I'd depart from traditional Philippine rice farming.

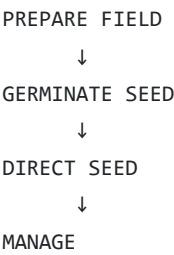
You have two options.

OPTION A — Traditional transplanting



Very labor intensive.

OPTION B — Direct-seeded rice



This is much closer to the modern American grain-farming model.

PhilRice is actively studying the transition from transplanted rice to direct-seeded rice because transplanting contributes significantly to labor cost. ([PhilRice](#))

For **your experimental 1-acre farm, I would strongly investigate direct seeding first.**

8. Direct Seeding Is Not Simply "Throw Seeds Everywhere"

There are different methods.

Broadcast

Seed scattered over the field.

Simple, but less precise.

Drum seeder

Seeds are placed in rows.

Mechanical seeder

Machine places seed systematically.

Precision/direct seeding

Uniform spacing and depth.

PhilRice's plastic drum seeder is specifically designed to place rice grains in straight rows, reduce seed requirements and permit mechanical weeding between rows. ([PhilRice](#))

That's exactly the philosophy we're trying to copy.

9. Seed Rate

This is an area where Philippine rice farming has historically used far more seed than necessary.

PhilRice recommends approximately:

Transplanted: ~40 kg/ha

Direct-seeded: ~60–80 kg/ha

depending on the system. ([PhilRice](#))

For your:

0.405 ha

that translates roughly to:

Transplanted

~16 kg seed

Direct seeded

~24–32 kg seed

The exact rate should follow the chosen variety and establishment method.

The important concept:

More seed ≠ more rice.

Excessive density creates competition and can increase disease/pest and lodging problems.

10. Select the Variety

Don't select rice based solely on:

"Which variety produces the most tons?"

Instead evaluate:

YIELD × MATURITY × DISEASE RESISTANCE × LOCAL ADAPTATION × MARKET PRICE

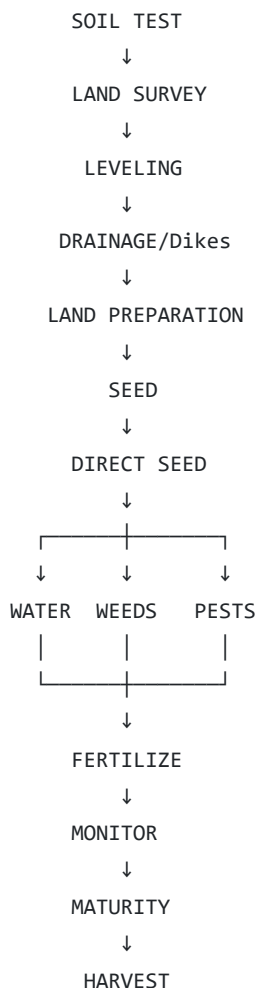
For your first cycle I'd favor a **certified inbred variety already recommended locally** rather than an experimental variety.

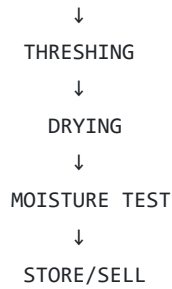
The Rice Competitiveness Enhancement Fund program is providing farmers access to certified inbred seeds, machinery and training, including in Southern Leyte. ([PhilRice](#))

That's potentially very useful to investigate through your local agriculture office.

11. The Rice Production Pipeline

Here's the complete system:





12. Land Preparation

For your acre:

Operation 1

Plow.

Operation 2

Harrow.

Operation 3

Flood/soak as appropriate.

Operation 4

Final leveling.

Operation 5

Prepare the seedbed.

The objective is **not simply pulverized soil**.

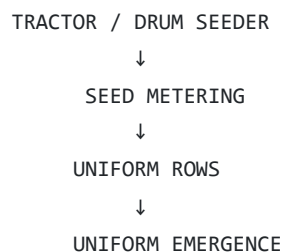
The objective is:

A level, firm, weed-controlled seedbed capable of holding controlled water.

PhilRice describes proper tillage and leveling as foundational to water, nutrient, weed and pest management. ([PhilRice](#))

13. Planting

If you choose direct seeding:



Your goal is:

uniform plants

rather than simply:

lots of plants.

14. Water Management

This is probably the biggest conceptual change I'd make.

Don't think:

"Keep the rice underwater."

Think:

CONTROL WATER

PhilRice promotes **Alternate Wetting and Drying (AWD)** as a water-saving practice. ([PhilRice](#))

Instead of continuously maintaining deep standing water:

```
FLOOD
↓
DRAIN / ALLOW WATER TO FALL
↓
MONITOR
↓
REFLOOD
↓
REPEAT
```

This can reduce unnecessary water use while maintaining productivity when properly managed.

PhilRice's current guidance also promotes wet and dry direct seeding as water-saving establishment options. ([PhilRice](#))

15. Build an Observation Well

This is a very inexpensive but powerful piece of "American-style" precision farming.

Install a simple perforated observation tube in the field.

Now you're not guessing:

"Does the field need water?"

You can actually monitor the water table.

Then:

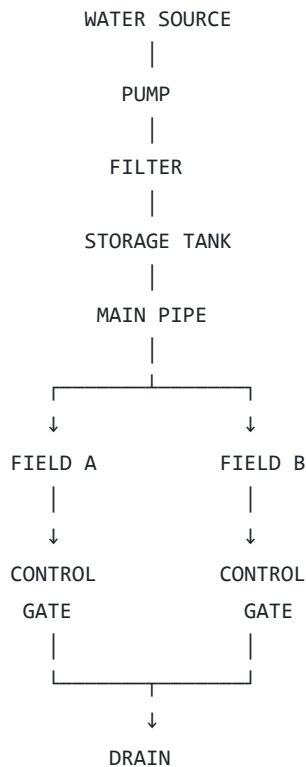
OBSERVATION WELL → DECISION → PUMP

instead of:

FARMER'S GUESS → PUMP

16. Irrigation Architecture

I'd build:



For one acre, this doesn't need to be complicated.

17. Rice Is More About Water Timing Than Water Volume

Critical periods include:

- establishment
- tillering
- panicle development
- flowering
- grain filling

The goal isn't:

"Maximum water."

It's:

Water at the right time.

PhilRice notes that uncontrolled water can stress rice and that properly maintained drainage is important for plant growth and field operations. ([PhilRice](#))

18. Fertilizer

Don't use:

"Five sacks because that's what everybody does."

Use:

Soil test

↓

Rice Crop Manager

↓

Split applications

↓

Observe crop response

↓

Adjust future crop

PhilRice emphasizes matching fertilizer **type, amount and timing** to crop needs and soil conditions. ([PhilRice](#))

A common recommendation for wet-season transplanted rice, for example, has involved complete fertilizer around 10 days after transplanting followed by urea later—but **I would not automatically apply those rates to your farm** without soil/crop-specific guidance. ([PhilRice](#))

19. Think of Nitrogen as a Control System

Too little:

YELLOW
↓
LOW BIOMASS
↓
LOW YIELD

Too much:

VERY DARK GREEN
↓
EXCESS VEGETATIVE GROWTH
↓
LODGING / PEST / DISEASE RISK

Correct:

HEALTHY GREEN
↓
STRONG TILLERING
↓
GOOD PANICLES



GRAIN

That's why modern farming is about **precision**, not maximum inputs.

20. Weed Management

Direct-seeded rice makes weeds especially important.

Your system becomes:

PREVENT → MONITOR → INTERVENE

Rather than:

SPRAY EVERYTHING

Possible tools include:

- good field leveling
- correct water management
- row planting
- mechanical weeding
- selective herbicides where appropriate

If you use herbicides, follow the **specific product label and Philippine registration**, and get local technical advice.

21. Pest Management

Your weekly inspection should look for:

Insects

- stem borers
- planthoppers
- leaf folders
- rice bugs
- etc.

Disease

- blast
- bacterial diseases
- sheath diseases
- etc.

Other

- rats
- birds
- golden apple snails

The objective is not to eliminate every insect.

It's:

Keep economic damage below the threshold.

PhilRice's integrated crop management approach combines crop, pest, soil, nutrient and water management rather than treating each problem independently. (PhilRice)

22. Your Weekly Farm Inspection

I'd literally walk the acre once a week.

Take:

10–20 standardized photographs

from the same locations.

Record:

Date	Water	Crop	Weed	Pest	Disease	Fertilizer	Action
Week 1	Wet	Good	Low	None	None	—	Monitor
Week 2	Good	Good	Medium	Low	None	—	Weed
Week 4	AWD	Good	Low	Low	None	N	Monitor
Week 6	AWD	Excellent	Low	Medium	Low	N	Inspect

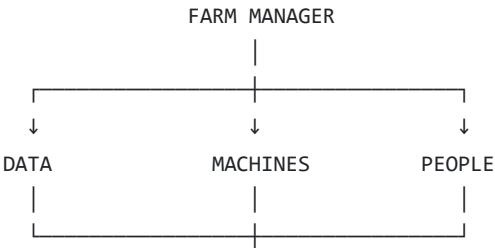
Now you have **farm history**.

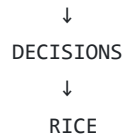
23. The American Farm Uses Humans Differently

Traditional:



Modern:





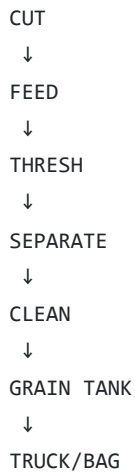
That's what you should copy.

24. Harvest

This is another major opportunity.

Don't harvest manually if a suitable combine service is available.

A modern rice combine:



PhilRice has specifically identified combine harvesting as a major cost-reduction opportunity because it reduces labor, harvest losses and turnaround time. ([PhilRice](#))

For **1 acre**:

Hire the combine.

Don't buy one.

25. Your Harvest Contractor Is Part of the Farm

This is extremely important.

Before planting, find:

WHO WILL HARVEST?

Ask:

- What machine?
- Minimum acreage?
- Price?
- When can they come?

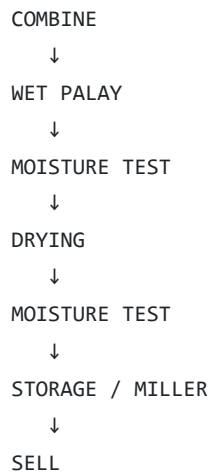
- Do they remove grain?
- Do they transport it?
- What happens if it rains?
- Where will grain be dried?

This is the equivalent of arranging a trucking company before shipping a product.

26. Post-Harvest Is Half the Business

Freshly harvested palay contains significant moisture.

Your pipeline:



Don't leave wet grain sitting around.

PHilMech emphasizes that delayed or incomplete drying causes quality and quantity losses and encourages drying to a safe moisture level for storage. ([PHilMech RCEF](#))

PhilMech's Maligaya flatbed dryer can dry grain to approximately **13–14% moisture**, illustrating the type of post-harvest system you want to access—even though you certainly don't need to own such equipment for one acre. ([PhilRice](#))

27. Your Equipment Strategy

This is where I would be very disciplined.

OWN

For your 1 acre:

- smartphone
- weighing scale
- moisture meter
- rain gauge
- basic sprayer
- PPE
- hand tools
- water-control tools

- observation well
- farm notebook/tablet

Potentially:

- small pump

HIRE

- tractor
- plow
- harrow
- laser/precision leveling
- drum/direct seeder
- transplanter if transplanting
- sprayer service
- combine
- shelling/threshing service
- mechanical dryer
- hauling

That's the **asset-light American model**.

28. Your Rice Farm Becomes a Data System

I'd create one Google Sheet:

FARM

Farm ID
Location
Area
Soil type
Elevation

CROP

Season
Variety
Seed source
Seed lot
Planting date
Harvest date

INPUTS

Fertilizer
Herbicide
Pesticide
Water

Labor

Machinery

OUTPUT

Wet palay kg

Dry palay kg

Moisture %

Milling recovery

Selling price

Revenue

Cost

Profit

Then every season becomes an experiment.

29. Your Rice Profit Equation

Don't measure success by sacks.

Measure:

Yield

kg palay / acre

Revenue

kg × ₱/kg

Cost

Land preparation

+ seed

+ fertilizer

+ herbicide

+ pest control

+ irrigation

+ labor

+ machinery

+ harvesting

+ drying

+ transport

Net

Revenue – total cost

And:

₱ cost per kg

That is your most useful number.

30. Your 1-Acre Rice Calendar

Assuming a conventional lowland crop:

Phase	Operation
Pre-season	Soil test
	Survey elevation
	Repair dikes
	Repair drainage
	Secure irrigation
	Select variety
	Arrange machinery
	Find buyer
Week 0	Land preparation
	Level field
	Prepare seed
Week 1	Direct seed / transplant
Week 2	Establishment
	Weed monitoring
	Water management
Weeks 3–5	Tillering
	Fertilizer
	Weed control
	Pest monitoring
Weeks 5–8	Panicle development
	AWD/water control
	Pest/disease monitoring
Weeks 8–10	Flowering
	Protect water availability
Weeks 10–12+	Grain filling
	Reduce irrigation approaching maturity
Harvest	Combine
	Moisture measurement
	Dry
Post-harvest	Weigh
	Sell/store

Actual timing depends on the variety and establishment method.

31. The Best Version for Your Leyte Acre

If this were **my one-acre Leyte experiment**, my target system would be:

 LAND

Properly leveled

↓

 WATER

Controlled irrigation + drainage + AWD

↓

 SEED

Certified locally adapted inbred

↓

 ESTABLISHMENT

Direct seeding if field conditions and weed management permit

↓

 NUTRIENTS

Soil test + Rice Crop Manager

↓

 WEEDS

Prevent + monitor + targeted control

↓

 PESTS

Weekly scouting + integrated management

↓

 DATA

Phone + photographs + farm log

↓

 HARVEST

Contract combine

↓

 DRY

Contract mechanical dryer when necessary

↓

 ACCOUNT

Yield + moisture + cost + selling price

↓

 NEXT CROP

Improve based on data

32. And There's a Particularly Interesting Opportunity in Leyte

This isn't theoretical.

DA-PhilRice reported in 2025 that **Southern Leyte** farmers were already receiving certified inbred seed, machinery and training through RCEF, including exposure to **walk-behind transplanters** and locally adapted rice technology demonstrations. [\(PhilRice\)](#)

PhilRice also has a broader program specifically focused on **modern, mechanized, precise and best-fit rice production**, including both transplanted and direct-seeded systems and data-driven decision making. [\(PhilRice\)](#)

So your best approach isn't to recreate an Arkansas rice farm.

It is:

us American operating philosophy

+

PH Philippine rice technology

+

 Leyte conditions

+

 Your 1-acre experimental farm

33. Corn vs. Rice on Your Acre

If you're considering actually farming the land, here's the fundamental difference:

	 Corn	 Rice
Water	Moderate	Critical

Drainage	Important	Extremely important
Leveling	Useful	Very important
Labor	Moderate	Historically high
Mechanization	Excellent	Excellent
Direct seeding	Normal	Increasingly important
Harvest	Combine	Combine
Drying	Important	Critical
Storage	Important	Critical
Small-farm mechanization	Hire	Hire
Best technology opportunity	Precision inputs	Water + precision inputs

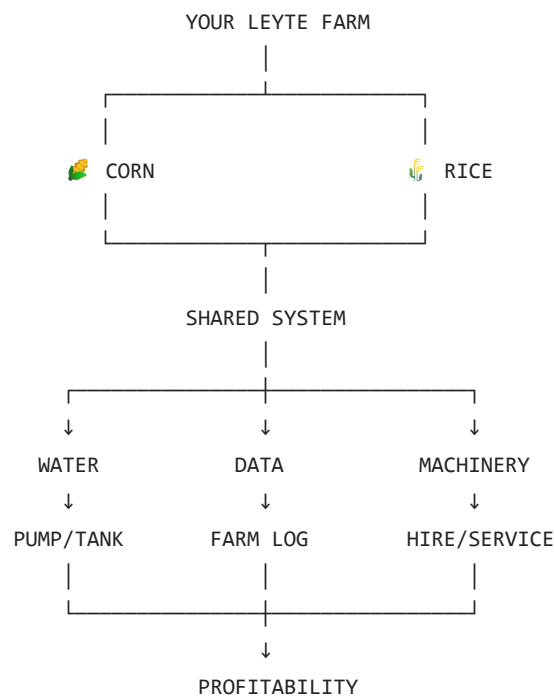
And there is a particularly important conclusion:

If your Leyte acre has reliable irrigation, good drainage and can be properly leveled, rice becomes a very interesting candidate for your "American-style" precision farm.

If it **doesn't** have reliable water control, I would investigate corn or another crop before investing heavily in rice.

My preferred architecture for your farm

I'd actually build **both concepts around the same infrastructure**:



That is the real "American farming" model: don't own everything; **standardize the process, mechanize repetitive work, measure inputs and outputs, and make every crop better than the previous one.**

And for rice specifically, I'd make **water management + direct seeding + mechanized harvest + mechanical drying + precise fertilizer management** the core of your first-year design.

Give me a similar plan for coffee farming

Absolutely. But coffee requires a **different farming mindset** from corn and rice.

Corn and rice are annual crops:

Prepare → plant → grow → harvest → start over.

Coffee is a **perennial orchard system**:

Design → plant → establish → train → prune → fertilize → harvest repeatedly → process → maintain for decades.

For your **1-acre (~0.405 ha) under-farmed land in Leyte**, I would not try to copy a giant Brazilian or American coffee plantation. I would copy the **modern commercial coffee-management system** and combine it with Philippine coffee technology and Leyte's climate.

And there is a particularly interesting reason to consider it: the Philippine government is currently putting renewed emphasis on coffee development, including a dedicated Coffee Industry Development Office established in 2026. ([Ag Department Portal](#))

The "American-Style" Coffee Farm

Think of the farm as a long-term production system:

LAND → WATER → SHADE → TREES → NUTRITION → PRUNING → PEST MANAGEMENT → HARVEST → PROCESS → DRY → GRADE → SELL

The farmer isn't supposed to do everything manually.

The farmer's job is to **design and manage the system**.







1. First: Your 1 Acre Becomes a Coffee Orchard

Your land:

Measurement	Area
1 acre	4,047 m ²
hectares	0.405 ha

Coffee is dramatically different from corn/rice because you aren't trying to maximize plants per season.

You're establishing a **permanent biological asset**.

A well-managed coffee tree can produce for many years.

So the first question is:

Is this land actually suitable for coffee?

That's more important than buying seedlings.

2. Leyte Is Not Automatically "Arabica Country"

This is important.

The Philippines grows four major coffee types:

- **Robusta**
- **Arabica**
- **Excelsa**
- **Liberica**

The national coffee roadmap identifies Robusta and Arabica as the major commercially important species; Robusta dominates Philippine production, while Arabica generally prefers higher elevations. ([Ag Department Portal](#))

And BSWM actually maintains coffee suitability maps, including a specific **Arabica suitability map for Southern Leyte**. ([BSWM](#))

So don't decide:

"I want Arabica because it is expensive."

Instead:

"**What coffee species is biologically and economically appropriate for my exact elevation and microclimate?**"

3. Your First Decision: Elevation

This could determine almost everything.

If your farm is:

Low elevation / warm / humid

I'd investigate:

 **ROBUSTA**

Potentially also:

- Liberica

- Excelsa

If your farm is:

Higher elevation / cooler / suitable microclimate

then:

 **ARABICA**

becomes much more interesting.

The Philippine coffee roadmap notes that Arabica grows well at higher elevations, while Robusta is the dominant commercial type nationally. ([Ag Department Portal](#))

So before planting a single tree:

GPS elevation + soil test + local coffee assessment.

4. Don't Clear Everything

This is another major difference.

With corn:

| clear → level → plant.

With coffee:

| **design the ecosystem.**

Coffee can work extremely well in an agroforestry system.

Philippine coffee farms commonly intercrop coffee with vegetables, coconut, fruit trees and forest trees; the national roadmap reports coffee planting densities broadly ranging from about 600–1,700 trees/ha. ([PCAFA](#))

And in Eastern Visayas, DA/ATI has specifically promoted **coconut-coffee farming systems**, including training in Leyte and Biliran. ([ATI Central Office](#))

So your existing vegetation may actually be an asset.

5. Your Coffee Farm Architecture

I'd design something like:



ACCESS PATH

WATER / FERTILIZER / PROCESSING

You're creating:

A managed coffee ecosystem

—not a bare field.

6. Soil Comes Before Seedlings

Take a proper soil test.

At minimum:

- pH
- nitrogen
- phosphorus
- potassium
- calcium
- magnesium
- organic matter

Also inspect:

- drainage
- compaction
- slope
- erosion
- soil depth

Coffee absolutely does not want stagnant water around its roots.

So:

WATER IN

and

WATER OUT

both matter.

7. Your First Infrastructure Project

Before planting coffee:

Fix drainage and access.

Coffee trees are permanent.

If you discover three years later that the land floods, you have a very expensive problem.

Build:

- drainage channels where needed
- erosion control
- access paths
- planting contours if sloped
- water collection/storage
- service area

Think about the farm **20 years from now**, not next season.

8. Select Your Coffee Type

I'd make your first acre potentially a **single-variety commercial block**, rather than mixing everything randomly.

For example:

Option A

100% Robusta

if lowland Leyte conditions favor it.

Option B

100% Liberica

if local conditions and market make it attractive.

Option C

Arabica

if elevation and climate are suitable.

Option D

A controlled experimental block:

ROBUSTA	LIBERICA
ROBUSTA	ARABICA

But I wouldn't do that until you know your market.

9. Don't Buy Random Seedlings

This is one of the biggest mistakes I'd avoid.

You want:

Certified / known planting material

with:

- known variety
- known source
- healthy roots
- disease-free material
- good nursery practices

The DA has been funding planting materials and rehabilitation of old coffee trees as part of its coffee programs. ([Ag Department Portal](#))

And the current national strategy is explicitly pushing better planting material, productivity and quality.

10. Your Farm Is Going to Be Mostly Trees

The national coffee roadmap gives a useful real-world range of approximately **600–1,700 trees/ha** among Philippine farms. ([PCAF](#))

For your:

0.405 ha

that corresponds very roughly to:

~240–690 coffee trees

depending on variety, spacing, terrain and management system.

For your first commercial acre, I'd favor a **manageable density** rather than stuffing the field with trees.

Something around:

2 m × 2 m

would theoretically give:

~1,000 trees/ha

or approximately:

400 trees on your acre

before allowing for roads, drainage, buildings and shade trees.

That's a useful conceptual starting point—not a prescription. Your local coffee technician should adjust spacing to the selected variety, terrain and pruning system.

11. Coffee Planting Is a Construction Project

Think of planting day differently.

You're establishing something that could occupy the land for decades.

The sequence:

SURVEY
 ↓
 CLEAR SELECTIVELY
 ↓
 DRAINAGE
 ↓
 ACCESS
 ↓
 SHADE SYSTEM
 ↓
 STAKE ROWS
 ↓
 DIG HOLES
 ↓
 SOIL AMENDMENT
 ↓
 PLANT SEEDLINGS
 ↓
 MULCH
 ↓
 IRRIGATION

12. Shade Is Part of the Farm

This is especially relevant in tropical Leyte.

You don't necessarily want:

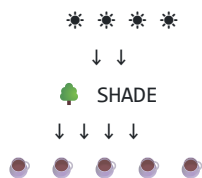
100% sun.

But you also don't want:

deep forest shade.

You want controlled shade.

Think:



Shade trees can also provide:

- organic matter
- wind protection
- microclimate moderation
- additional products
- erosion control

This is why coffee integrates naturally into agroforestry.

DA's 2026 Northern Mindanao coffee-bamboo initiative is explicitly using coffee within sustainable agroforestry systems. (PCAF)

13. But Don't Let Shade Become a Jungle

This is where the farmer becomes a **manager**.

You periodically control:

- shade density
- competing roots
- branches
- weeds
- sunlight

Your goal:

Enough light for productive coffee + enough canopy to moderate the environment.

14. The First 12 Months Are Establishment

This is the period where you shouldn't expect much coffee.

Your objective is:

ROOTS

↓

TRUNK

↓

BRANCH STRUCTURE

↓

HEALTHY CANOPY

↓

FUTURE PRODUCTION

Don't chase early fruit at the expense of tree structure.

15. Coffee Needs Training and Pruning

This is one of the biggest differences from corn/rice.

You're managing the architecture of a tree.

You want:



rather than:



Remove:

- weak shoots
- unwanted suckers
- dead branches
- diseased branches
- overcrowded growth

The Philippine coffee roadmap specifically identifies pruning as a routine maintenance activity and notes that pruning is often performed after harvest. ([PCAF](#))

16. Fertilization

Don't blindly use:

"X grams per tree."

Use:

SOIL TEST

▪

LEAF/CROP OBSERVATION

▪

LOCAL COFFEE RECOMMENDATION

↓

FERTILIZER PLAN

The national roadmap reports that Philippine growers use inorganic fertilizers such as urea, phosphate and potash, with organic fertilizers also used. ([PCAF](#))

Your system should record:

Tree block
↓
Fertilizer
↓
Amount
↓
Date
↓
Rainfall
↓
Plant response

17. Mulching Is Your Friend

Coffee benefits from maintaining soil moisture and organic matter.

Use appropriate organic material:

- pruned vegetation
- leaves
- grass
- compost
- other clean organic material

But:

Don't pile wet organic matter directly against the trunk.

Create a managed mulch zone around the tree.

18. Water Management

Coffee isn't rice.

You don't want standing water.

You want:

Deep soil moisture

with:

Good drainage.

For your acre, I'd consider:

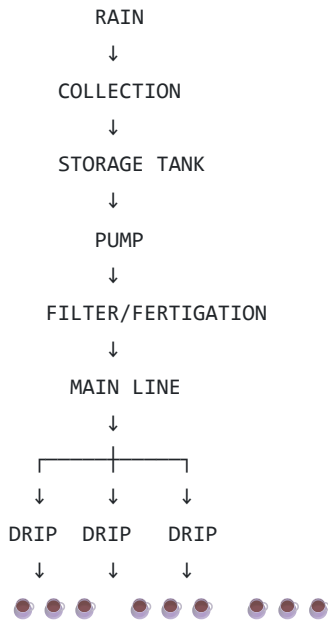
storage tank + pump + drip/micro-irrigation

if the site experiences meaningful dry periods.

And this is another place where Leyte's climate matters. Eastern Visayas has areas with rainy conditions for much of the year, but rainfall patterns vary considerably across the region. ([EV Regional Office](#))

Don't install an expensive irrigation system until you understand the farm's actual water balance.

19. Your Coffee Farm's Water System



If you eventually automate it:

soil moisture → controller → irrigation

instead of:

farmer guessing.

20. Coffee Pest Management

Again:

Monitor first. Spray second.

Inspect:

- leaves
- stems
- branches
- cherries
- roots

Look for:

- coffee berry borer
- coffee leaf rust
- fungal diseases
- scale/insects
- stem problems

Philippine coffee training programs specifically emphasize disease management, fertilization, pruning and rejuvenation as core farm-management skills. ([ATI Central Office](#))

21. Your Weekly Coffee Inspection

Walk the orchard.

Check:

TREE

- new growth
- yellowing
- wilting
- damage

CANOPY

- shade
- density
- disease

FRUIT

- cherry development
- insect damage
- premature drop

SOIL

- moisture
- weeds
- erosion

WATER

- irrigation
- drainage

And photograph the same locations every month.

22. Here's Where Coffee Gets Really Interesting

Unlike corn and rice:

You don't harvest the entire farm on one day.

Coffee ripens progressively.

So your harvest system becomes:

```

TREE
↓
RED CHERRY
↓
SELECTIVE PICKING
↓
BASKET
```



PROCESSING

PhilMech specifically recommends selective harvesting—picking ripe cherries rather than stripping green and ripe fruit together. (PhilMech)

That is extremely important for quality.

23. Harvesting Is Labor-Intensive

This is where you **cannot completely copy American grain farming**.

A combine can harvest rice.

A coffee tree produces cherries at different stages.

So:

human hands still matter.

But you can organize the labor system.

Instead of:

"Everybody harvest everything."

Use:

PICK ONLY RED CHERRIES.

Then:

collector → weighing → sorting → processing

24. Pay Harvesters by Quality + Weight

This could be a very interesting management system.

Instead of simply:

₱X per day

you could create incentives around:

kg of acceptable ripe cherries

while rejecting excessive green/unripe fruit.

The principle has already been demonstrated commercially in the Philippines: one cooperative changed to selective harvesting after offering a higher price for ripe cherries. (PhilMech)

That creates a feedback loop:

QUALITY → PRICE → FARMER BEHAVIOR → QUALITY

25. Coffee Processing Is Where Money Starts Moving

You have three basic processing approaches:

NATURAL / DRY

Whole cherry:

harvest → dry → hull

WASHED / WET

harvest → float → pulp → ferment/wash → dry

SEMI-WASHED

Intermediate system.

PHilMech describes wet, semi-wet and dry processing as the three major processing routes. ([PHilMech](#))

26. Robusta Can Be Especially Interesting for a Small Leyte Farm

Robusta is traditionally associated with dry processing in Philippine commercial systems.

One Philippine cooperative described by PHilMech processes Robusta using the dry method:

fresh cherry → dryer → hulling

rather than wet processing. ([PHilMech](#))

This could potentially simplify your first operation.

But don't automatically choose processing based on species alone.

Your **buyer and desired market** should determine your process.

27. The Drying System Is Critical

This is where many small coffee farms lose quality.

Never think:

"It's dry enough."

Use a:

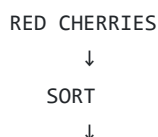
COFFEE MOISTURE METER

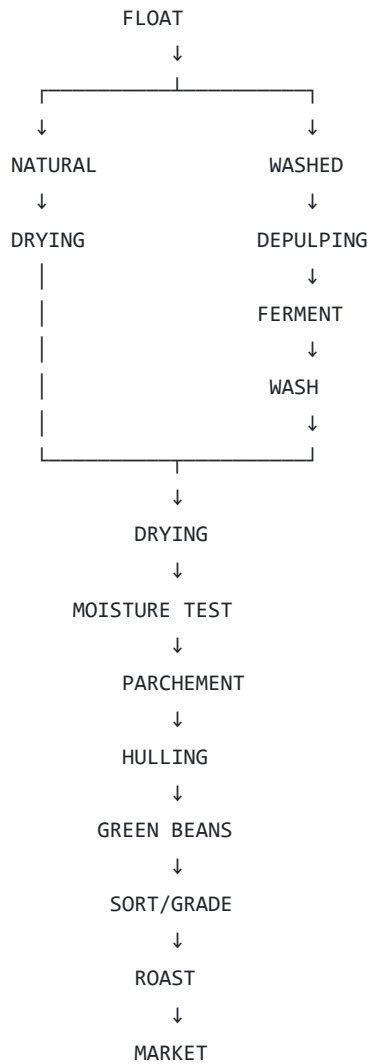
PHilMech recommends drying coffee to approximately **11–12% moisture** for storage, and stresses controlled drying temperatures because excessive heat can damage quality. ([PHilMech](#))

This is exactly analogous to the moisture-meter concept we discussed for your rice farm.

28. Your Coffee Processing Pipeline

I'd build:





29. Don't Buy a Coffee Processing Factory

Not for one acre.

This is extremely important.

Own:

- pruning tools
- sprayer
- moisture meter
- harvesting baskets
- weighing scale
- basic drying equipment

Potentially:

- small manual pulper

PhilMech's manual coffee pulper is rated around **40–50 kg/hour** with one operator, making this type of small-scale equipment much more appropriate for a small farm than an industrial machine. ([PhilMech](#))

Hire/access:

- mechanical dryer
- huller
- sorter
- roaster

through:

cooperative / processor / coffee center / service provider

30. Drying Infrastructure for Leyte

This deserves special attention because Leyte's weather can make outdoor drying unreliable.

I would prefer:

Raised drying beds

or

Solar tunnel dryer

over:

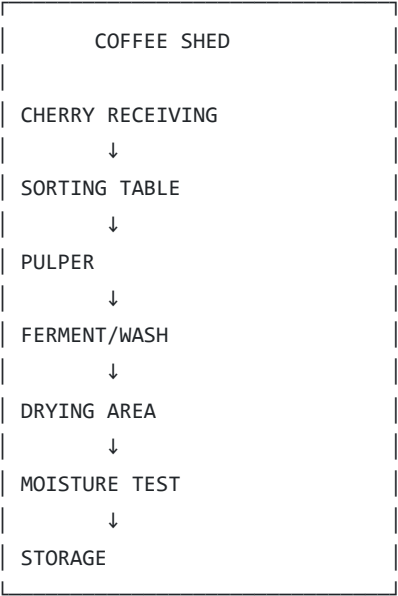
concrete pavement / roadside drying.

PHilMech has documented solar tunnel drying systems that protect coffee from rain and contamination. ([PhilMech](#))

This is particularly relevant to your location.

31. Your Coffee Farm Should Have a Small Processing Shed

Something like:



Keep it clean.

Keep animals out.

Keep rain out.

Keep the product off the ground.

32. Storage

Once dried:

Don't immediately roast everything.

Store green coffee properly.

Your inventory becomes:

LOT #001
VARIETY: ROBUSTA
HARVEST: 2027
BLOCK: A
PROCESS: NATURAL
DRYING: 11.8%
WEIGHT: 82 kg

Now you have **traceability**.

That's the beginning of specialty coffee thinking.

33. This Is Where You Can Outperform Commodity Farmers

Suppose two farmers each produce coffee.

Farmer A

Sells:

"coffee beans"

You

Sell:

Leyte Robusta — Block A — 2027 — Natural Process — selectively harvested — dried to 11.5% — traceable lot

You are no longer merely selling agricultural output.

You're selling:

a product with provenance.

That's potentially much more valuable.

34. Don't Automatically Sell as Raw Coffee

There are at least four business levels:

Level 1

Fresh cherries

↓

Level 2

Dried cherries

↓

Level 3

Green coffee

↓

Level 4

Roasted beans

↓

Level 5

Branded roasted coffee

Your one-acre farm could eventually become:

Farm → Micro-roastery → Direct consumer

instead of:

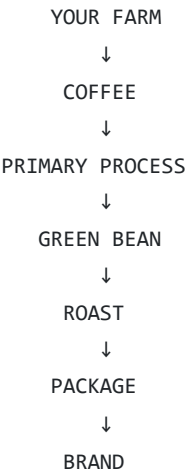
Farm → Trader

But I would **not jump immediately to Level 5.**

First prove the farm.

35. The "American" Approach Is Vertical Integration—Carefully

Your system could eventually become:



↓
DIRECT MARKET

That's where the economics can become very different.

36. Your Coffee Farm Is a Long-Term Investment

Here's the fundamental difference from rice:

	 Rice	 Coffee
Crop life	~months	many years
First harvest	months	typically years/earlier with good seedlings
Major machinery	harvest/land prep	processing
Water	critical	important
Drainage	critical	critical
Labor	planting/harvest	harvest/pruning
Quality	grain moisture	cherry selection + processing + drying
Storage	palay	green coffee
Value-add	milling	roasting/branding
Orchard management	No	Yes
Shade	No	Potentially important
Main asset	crop	trees + crop

The Philippine coffee roadmap notes that farms using 8–10-month-old seedlings can begin harvesting around two years, while farms established from wildlings may take much longer. (PCAF)

So your choice of planting material matters enormously.

37. Your First 3 Years

I'd think of the project this way.

YEAR 0 — BUILD

Objective: establish the orchard.

- survey
- soil test
- select species
- source certified seedlings
- design shade
- drainage
- water

- roads
 - plant
 - mulch
 - establish irrigation
 - begin farm records
-

YEAR 1 — TRAIN

Objective: build trees.

- weed management
- fertilizer
- irrigation
- shade management
- formative pruning
- pest monitoring
- disease monitoring
- replace dead trees
- maintain access

Your coffee crop is **not the priority**.

Tree architecture is.

YEAR 2 — FIRST PRODUCTION

Objective: learn harvesting and processing.

- selective picking
 - weighing
 - sorting
 - processing
 - drying
 - moisture testing
 - record lot
 - sell
 - evaluate quality
-

YEAR 3+ — OPTIMIZE

Now you know:

which trees perform

which blocks perform

which variety performs

which processing method works

what buyers pay

what your true cost is

38. Your Coffee Farm Dashboard

This is where I'd make your farm distinctly different.

Create a spreadsheet:

TREE INVENTORY

Tree	Variety	Date planted	Status	Yield
R001	Robusta	2027	Healthy	—
R002	Robusta	2027	Healthy	—
R003	Robusta	2027	Replace	—

You don't need to literally track 400 trees individually forever, but block-level records are extremely useful.

39. Block-Level Management

Divide the acre into:

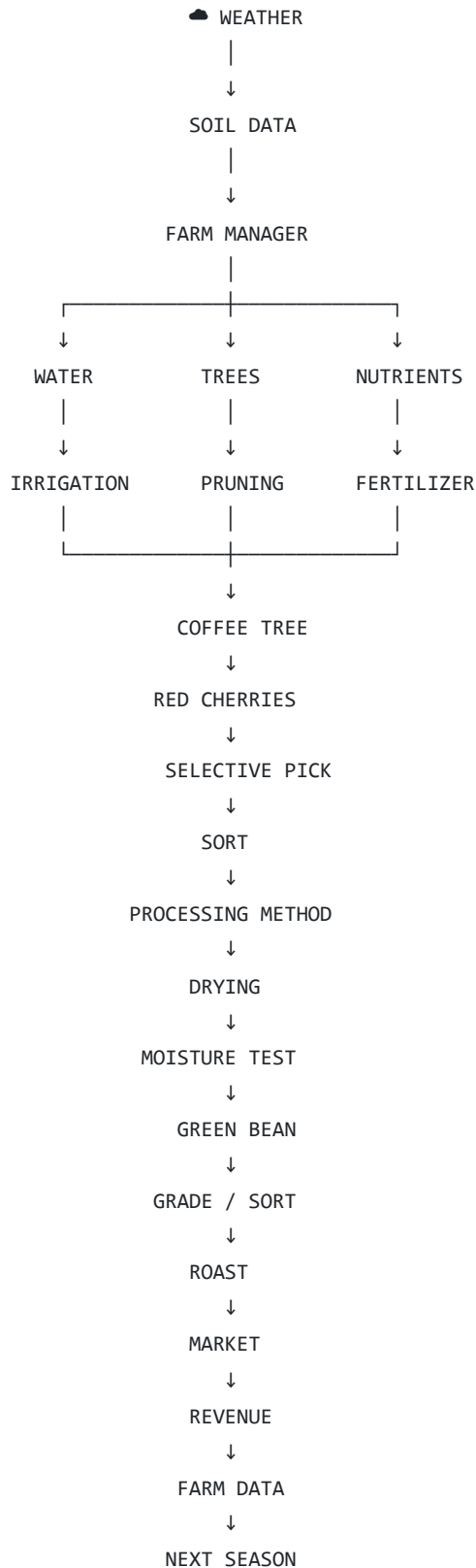
BLOCK A	BLOCK B
Robusta	Robusta
BLOCK C	BLOCK D
Experiment	Liberica?

- Record:
- fertilizer
 - rainfall
 - irrigation
 - pruning
 - pest incidence
 - flowering
 - harvest
 - yield
 - processing
 - price

Then you'll know which block actually makes money.

40. Your "Coffee Factory" Workflow

This is the complete system I would use:



41. What You Should Own

For **one acre**, I'd own relatively little.

Essential

- pruning shears
- loppers
- machete/bolo
- backpack sprayer
- PPE
- weighing scale
- coffee moisture meter
- rain gauge
- soil-moisture monitoring
- harvesting baskets
- drying trays
- farm smartphone/tablet
- farm records

Potentially

- small pump
- drip irrigation
- manual coffee pulper
- small solar dryer

PhilMech already has low-cost coffee processing technologies specifically suited to smaller operations, including the manual pulper. ([PhilMech](#))

42. What You Should NOT Own

Don't buy:

- ✗ tractor
- ✗ large excavator
- ✗ industrial coffee huller
- ✗ industrial dryer
- ✗ large roaster
- ✗ expensive sorting machine

Instead:

HIRE / COOPERATIVE / SERVICE CENTER

This is the same philosophy we used for your corn and rice farms.

43. Your Biggest Risk Isn't Farming

It's:

Planting coffee without knowing who will buy it.

Before planting:

Find three potential buyers.

Ask each:

1. What variety?
2. What moisture?
3. What processing?
4. What grade?
5. Minimum volume?
6. Current buying price?
7. Premium for quality?
8. Do they buy cherries or green beans?
9. Do they provide seedlings?
10. Do they provide technical assistance?

Then design the farm around the market.

44. And This Is Particularly Interesting in the Philippines Right Now

The Philippine government has recognized that domestic production is far below consumption and is actively trying to improve the industry.

The DA has reported that the Philippines has historically been only about **15% self-sufficient in coffee**, with production concentrated heavily in Mindanao. ([Ag Department Portal](#))

More recently, in 2026, DA created a dedicated **Coffee Industry Development Office (CIDO)** to consolidate coffee programs, funding and policy. ([Ag Department Portal](#))

That means coffee is receiving considerably more institutional attention than it did previously.

45. Your Leyte Advantage

I actually like the idea of your Leyte property for an experiment because Eastern Visayas is already an agricultural region with substantial rainfall and agricultural land. ([EV Regional Office](#))

And DA/ATI has already been conducting coffee-related training in **Leyte and Biliran**, including coconut-coffee systems. ([ATI Central Office](#))

So you aren't starting from zero.

46. The One Thing I Would Do Before Anything Else

Don't buy coffee seedlings yet.

I would spend the first stage answering **five questions**:

- ① What is the elevation?
- ② What is the soil pH and fertility?
- ③ Does the acre drain properly?
- ④ Which coffee species is locally suitable?

⑤ Who will buy the coffee?

Those five answers determine almost everything else.

47. My Recommended "American-Style Leyte Coffee Farm"

If I were building this for you:



FARM DESIGN

Agroforestry coffee orchard



SPECIES

Locally suitable Robusta / Liberica / Excelsa / Arabica based on elevation



LAYOUT

Straight, accessible, measured planting blocks



WATER

Rain + controlled supplemental irrigation + drainage



NUTRITION

Soil test + leaf/crop observation



TREE MANAGEMENT

Training + pruning + shade management



PROTECTION

Weekly scouting + integrated pest management



HARVEST

Selective red-cherry picking



PROCESSING

Natural/wet/semi-washed according to market



 DRYING**Raised/solar drying + moisture meter** **GREEN COFFEE****Hulled + sorted + graded** **OPTIONAL VALUE ADD****Small-batch roasting** **BRAND****"Leyte Coffee" / farm-specific identity** **DATA****Cost + yield + quality + price**

48. The Most Important Difference

For your rice farm, I told you:

Water management is the heart of the system.

For your coffee farm:

Quality management is the heart of the system.

You can grow coffee.

But **good coffee** requires:

good genetics + good trees + good harvest + good processing + good drying + good storage.

PhilMech's research repeatedly identifies the problems created by stripping ripe and unripe cherries together, poor drying and inadequate processing. ([PhilMech](#))

So don't think:

"How many kilos of coffee can my acre produce?"

Think:

"How many kilograms of high-quality, traceable, properly processed green coffee can my acre produce—and what will the market pay for it?"

That's the **modern-farm mindset**.

And for your particular acre, I would seriously consider making the project **coffee + agroforestry rather than coffee monoculture**—especially if there are already coconut or useful shade trees on the property. The Philippine government is itself promoting coffee within agroforestry systems, and Eastern Visayas already has active coconut-coffee training programs. ([PCAF](#))

If you give me the exact municipality/barangay in Leyte and the approximate elevation of your acre, I can take this to the next level and design a specific 1-acre coffee orchard: species/variety recommendation, ~400-tree layout, shade-tree plan, spacing, water system, 3-year establishment calendar, labor requirements, processing setup, and a ₱ investment/ROI model.

List all the capex for my Leyte Farming Project. My parents had a working Rice and Corn Mill in Merida, Leyte since 1940. We have lands in several locations. I am a retiree 60 yom with enough funds to deploy any possible farming scenario. Create a shopping list. Land is also there just waiting. I have a house to live in Merida, Leyte. I just need guidance on what to do with those under utilized land resources.

Yes. With the additional information that **your family has operated a Rice & Corn Mill in Merida since 1940, you already own land in multiple locations, and you have a house in Merida**, I would change the strategy substantially.

You are no longer talking about "starting a farm."

You have the raw ingredients for a **family-owned agricultural enterprise**:

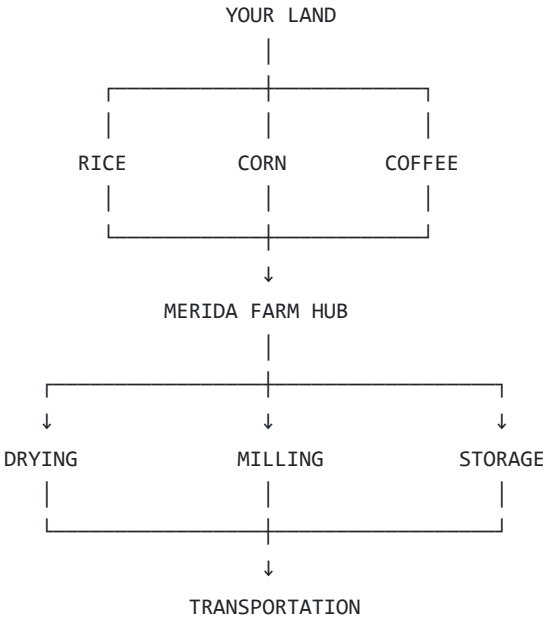
Land + legacy mill + local knowledge + residence + capital + retirement time = an opportunity to rebuild a modern integrated Leyte agri-business.

And I would **not** begin by buying everything on this list. I would first establish a **Merida Agricultural Hub**, then make the other properties satellite farms.

The Philippine government is actively moving toward exactly this type of mechanized, post-harvest-centered model. In 2026, PHilMech reported deploying 1,731 machines, including tractors, combines, dryers and precision seeders, while DA Region 8 explicitly identifies mechanization, drying, milling and post-harvest infrastructure as priorities. ([Ag Department Portal](#))

YOUR LEYTE FARMING PROJECT

Proposed architecture



↓
WHOLESALE / RETAIL

This is much more interesting than simply planting 1 acre of rice.

My recommendation: build in 5 CAPEX layers

CAPEX 1 — Land & Farm Infrastructure

CAPEX 2 — Farm Machinery

CAPEX 3 — Water & Power

CAPEX 4 — Post-Harvest / Milling

CAPEX 5 — Technology, Vehicles & Workshop

Then add:

CAPEX 6 — Coffee / High-Value Crop Processing

1. LAND DEVELOPMENT CAPEX

This comes **before tractors**.

Master land survey

Buy/contract:

- GPS survey
- RTK/GNSS survey capability
- topographic survey
- boundary verification
- elevation mapping
- drainage mapping
- irrigation mapping
- GIS mapping of every property

Target

Create a digital map:

PROPERTY 01

- └ Rice
- └ Corn
- └ Coffee
- └ Road
- └ Irrigation

- └ Drainage
- └ Buildings

Do this for **every parcel your family owns**.

CAPEX

₱300k–₱1.5M initially, depending on how many properties you have.

2. FARM ROAD SYSTEM

This is one of the most overlooked investments.

Build:

- farm access roads
- gravel roads
- culverts
- bridges
- drainage
- loading areas
- truck turnaround areas

You want:

A 10-wheeler truck to be able to reach the farm during harvest season.

Not:

"The farmer says the truck can probably get there."

Budget placeholder

₱2M–₱10M+

depending on total acreage and terrain.

3. DRAINAGE SYSTEM

Especially important in Leyte.

Build:

- perimeter drains
- field drains
- drainage channels
- culverts
- control gates
- flood diversion
- erosion-control structures

For rice:

water IN + water OUT

For corn:

water OUT

For coffee:

water OUT + controlled supplemental irrigation

4. IRRIGATION SYSTEM

I would create a **centralized irrigation program**.

CAPEX

- wells
- intake structures
- pumps
- solar pumps where appropriate
- diesel backup pumps
- electric pumps
- storage tanks
- pipelines
- valves
- filters
- pressure regulators
- irrigation controllers
- sprinklers
- drip systems
- rice field gates

A local Ormoc provider, DCV Agricultural Machinery Solutions, specifically lists agricultural irrigation systems, pump stations, sprinklers and precision-agriculture equipment among its offerings.

There are also local solar/irrigation suppliers such as Ormoc Solar Pump for Irrigation and Guintiguian Solar Pump.

Budget

₱2M–₱10M+

depending on how much land you ultimately irrigate.

5. FARM POWER

I would establish a **central power system at the Merida hub**.

Primary

Grid electricity.

Backup

Diesel generator.

Renewable

Solar PV + battery.

Equipment

- 20–50 kW solar initially
- battery storage
- 30–100 kVA diesel generator
- automatic transfer switch
- electrical distribution
- workshop power
- mill power
- dryer power
- office power
- security system

A local option for solar installation is JMC Solar Ormoc.

Budget

~~₱2M–₱8M~~

depending on system size.

6. YOUR TRACTOR FLEET

Now we get to the fun part.

Because you have **multiple properties**, I would actually consider owning tractors rather than hiring everything.

Tractor #1

50–60 HP 4WD

General-purpose tractor.

Tractor #2

70–90 HP 4WD

Heavy land preparation.

Tractor #3

30–40 HP compact tractor

Coffee/orchard/general maintenance.

A local source is John Deere Tractor in Ormoc, while Kubota Ormoc and ADAMCO Ormoc City provide additional machinery channels.

Attachments

This is where the tractor becomes useful:

- rotary tiller
- disc harrow
- moldboard/plow

- land leveler
- box blade
- subsoiler
- ridger
- rotary slasher
- mower
- post-hole digger
- trailer
- front loader
- forks
- pallet forks
- bucket
- backhoe attachment
- sprayer
- fertilizer spreader
- seeder
- rice planter attachment

Budget

I'd allocate:

~~₱8M–₱20M~~

for a serious 2–3 tractor fleet with implements.

7. MINI EXCAVATOR

I would absolutely consider this.

3–5 ton excavator

For:

- drainage
- ponds
- irrigation
- culverts
- road maintenance
- land clearing
- farm construction

This is one machine that can become extremely useful across multiple properties.

Budget

~~₱2.5M–₱5M~~

8. SKID STEER / LOADER

Very useful around the hub.

Use for:

- pallets
- grain
- fertilizer
- soil
- compost
- road maintenance
- loading trucks
- warehouse work

Budget

~~₱2M~~–~~₱4M~~

9. FARM TRUCKS

I'd eventually want:

Pickup

Farm manager / service vehicle.

4×4 utility truck

Farm operations.

6-wheeler

Palay/corn/coffee transport.

10-wheeler

Bulk grain transportation.

Potentially:

Small tractor trailers

for internal movement.

Budget

~~₱6M~~–~~₱15M~~

depending on fleet size.

10. RICE PRODUCTION EQUIPMENT

Here's where your family's history becomes important.

Your parents already had a rice/corn mill.

I'd investigate **restoring or rebuilding that capability rather than starting from scratch.**

Rice machinery

Land preparation

- 4WD tractor
- rotavator
- disc harrow
- leveling blade

Planting

- precision rice seeder
- drum seeder
- mechanical rice transplanter

Harvest

- rice combine harvester

Post-harvest

- threshers
- grain cleaners
- moisture meters
- dryers
- conveyors
- elevators
- storage

PHilMech's current rice combine specification is approximately 65–85 HP, crawler-driven, and capable of up to roughly 3 hectares/day. ([PHilMech RCEF](#))

A recent Philippine procurement example put four rice combines at **₱9.6M total**, or about **₱2.4M each**, although actual commercial pricing varies considerably by model and configuration.

I'd budget:

₱8M–₱15M for a serious rice machinery package.

11. CORN MACHINERY

This is where your family's **corn mill** becomes strategically important.

I'd consider:

Corn planter

Corn sheller

Corn husker/sheller

Corn harvester

Corn dryer

Grain cleaner

Hammer mill

Corn mill

Grain conveyor

Grain elevator

Bagging machine

Weighing system

Moisture meter

Budget

₱5M–₱15M

depending on capacity.

PhilMech demonstrated a **pneumatic corn planter, corn mill and other technologies in Leyte in July 2026**, so there is already a local technology ecosystem to investigate rather than importing everything blindly. ([PhilMech](#))

12. THE RICE DRYER

This is one of the first pieces of serious post-harvest equipment I'd buy.

I'd target:

6-ton/batch recirculating dryer

Potentially multiple units eventually.

Why?

Because:

HARVEST + RAIN

can destroy the economics of a rice farm.

A modern RPS2 installation in Antique, for example, was reported at **₱60.9M**, including two 6-ton recirculating dryers and a 2–3 ton/hour multi-stage rice mill. ([PhilMech](#))

You don't need that entire facility initially—but it demonstrates the scale of an integrated commercial system.

Initial budget

₱5M–₱15M

13. GRAIN STORAGE

I would build:

A PROPER GRAIN WAREHOUSE

Not just a shed.

Include:

- concrete floor
- insulated/appropriate roofing
- ventilation
- pallets
- grain bins
- bag storage
- loading dock
- truck access
- rodent exclusion
- fire protection
- security cameras
- weighing station
- moisture monitoring

Initial capacity

I'd target:

100–300 tons

then expand.

Budget

₱5M–₱15M

14. GRAIN SILOS

If you ultimately aggregate production from several farms:

Consider:

50-ton silos

or

100-ton silos

with:

- aeration
- temperature sensors
- grain handling
- augers
- conveyors

This moves you toward a genuine grain business.

CAPEX

Potentially:

₱5M–₱20M+

depending on capacity.

15. YOUR FAMILY RICE MILL

This deserves a separate project.

I would commission an engineering assessment:

Phase 1

Inspect the old mill.

Document:

- building
- foundation
- electrical
- motors
- shafts
- elevators
- hullers
- polishers
- blowers
- conveyors
- storage
- dryer
- packaging
- rice quality

Phase 2

Determine:

Restore vs rebuild.

Phase 3

Modernize.

16. MODERN RICE MILL

If you're serious, don't think:

"Rice mill."

Think:

Rice Processing Center

Potential system:

PALAY
↓
RECEIVING
↓
WEIGHING

↓
MOISTURE TEST
↓
PRE-CLEANER
↓
DRYER
↓
STORAGE
↓
CLEANING
↓
DE-STONER
↓
HUSKER
↓
SEPARATOR
↓
WHITENER
↓
POLISHER
↓
GRADER
↓
SORTER
↓
PACKAGING
↓
WAREHOUSE

The DA's Region 8 rice program specifically lists modernization of rice mills, warehouses, dryers and Rice Processing Complexes as part of its mechanization strategy. ([EV Regional Office](#))

17. COLOR SORTER

If you're rebuilding the mill:

Buy one.

A color sorter can remove:

- discolored grains
- damaged grains
- foreign material
- quality defects

This becomes important if you want to sell premium packaged rice.

18. PACKAGING LINE

Eventually:

- 1 kg

- 2 kg
- 5 kg
- 10 kg
- 25 kg

with:

- automatic weighing
- bag filling
- heat sealing
- date coding
- labeling
- palletizing

This takes you from:

farmer

to:

food manufacturer.

19. CORN MILL

Because your family already had one:

I would seriously consider restoring this capability.

But modernize it.

Potential products:

Human food

- corn grits
- cornmeal
- specialty corn products

Animal feed

- cracked corn
- corn meal
- feed ingredients

Add:

- hammer mill
 - cyclone
 - dust collection
 - conveyors
 - bagging
 - weighing
 - storage
-

20. COFFEE FARM CAPEX

Coffee becomes your **high-value/perennial division**.

Nursery

- greenhouse
- shade house
- propagation tables
- irrigation
- seedling trays
- substrate
- misting

Orchard

- seedlings
- shade trees
- irrigation
- pruning equipment
- sprayers
- access roads
- drainage

Processing

- cherry receiving
- sorting tables
- depulper
- fermentation tanks
- washing
- drying beds
- solar dryer
- mechanical dryer
- moisture meter
- huller
- green-bean storage

Optional

- coffee roaster
- grinder
- packaging machine

PhilMech has developed coffee processing technologies including coffee rubber hullers and manual coffee de-pulpers, and these were demonstrated in Leyte in July 2026. ([PhilMech](#))

21. COFFEE DRYING

I'd put:

Solar tunnel dryer

high on the list.

Then:

Mechanical backup dryer.

Because Leyte weather can interrupt sun drying.

22. COLD STORAGE / HIGH-VALUE CROPS

Don't limit yourself to:

rice + corn + coffee.

Once the farm infrastructure exists, you can experiment with:

- cacao
- coconut
- banana
- calamansi
- pineapple
- ginger
- turmeric
- vegetables
- root crops
- livestock feed crops

A **small cold room** becomes interesting if you start producing perishables.

Budget

₱2M–₱5M

23. ORGANIC FERTILIZER SYSTEM

You have an enormous potential source of biomass:

rice straw + corn residue + coffee pulp + leaves + weeds

Instead of:

WASTE

turn it into:

INPUT

Equipment:

- chipper/shredder
- compost mixer
- composting bays
- compost turner
- bagging equipment
- weighing scale

PhilMech's 2026 procurement plans include agricultural-waste shredders specifically to support organic fertilizer production. (Bicol Agriculture)

Budget

~~₱1M–₱4M~~

24. FARM WORKSHOP

This is one of the most important CAPEX items.

Build a:

Farm Equipment Maintenance Center

Include:

- concrete floor
- vehicle lift
- welding machine
- plasma cutter
- air compressor
- hydraulic press
- drill press
- lathe
- grinder
- impact tools
- torque tools
- diesel diagnostic equipment
- electrical tools
- parts shelving
- lubrication station
- hydraulic hose equipment

Your farm should not stop operating because:

"The tractor has a broken hydraulic hose."

Budget

~~₱2M–₱6M~~

25. SPARE PARTS INVENTORY

I'd keep:

- belts
- bearings
- filters
- hydraulic hoses
- hydraulic fittings

- engine oil
- gear oil
- grease
- seals
- bearings
- chains
- sprockets
- tractor tires
- electrical components
- fuses
- batteries

This is working capital disguised as inventory.

26. FUEL SYSTEM

If you're operating multiple machines:

Diesel tank

with:

- secondary containment
- pump
- filtration
- meter
- fire suppression
- security

Also:

gasoline storage

for small equipment.

Have proper regulatory/fire-safety design rather than improvising tanks.

27. FARM TECHNOLOGY

This is where your existing technical background gives you an advantage.

I'd build:

Farm Operations Network

Connectivity

- Starlink or fiber where available
- LTE/5G backup
- Wi-Fi
- point-to-point wireless links

Cameras

- farm entrances
- mill
- warehouse
- fuel
- equipment yard
- processing area

Sensors

- weather station
- rain gauge
- soil moisture
- water level
- tank level
- temperature
- humidity
- grain temperature

GPS

- RTK base station
- rover
- machine guidance

Drones

- RGB mapping drone
- agricultural spraying drone later

28. WEATHER STATION

I'd absolutely buy one.

Install at the main farm.

Track:

- rainfall
- temperature
- humidity
- wind
- solar radiation
- soil moisture

Now your farming decisions become:

DATA → DECISION

rather than:

GUESS → ACTION

29. FARM MANAGEMENT SOFTWARE

You don't need expensive enterprise software initially.

I'd build:

Farm database

- PROPERTY
- FIELD
- CROP
- VARIETY
- PLANTING
- FERTILIZER
- SPRAY
- WATER
- HARVEST
- YIELD
- COST
- SALE

This is something you could eventually connect to your existing automation/DockerLab interests.

You could have:

Farm → sensors → database → dashboard → alerts

30. WEIGHBRIDGE

If your operation becomes serious:

Buy a truck scale.

Every incoming/outgoing load gets recorded.

- TRUCK
- ↓
- WEIGH IN
- ↓
- LOAD
- ↓
- WEIGH OUT
- ↓
- NET WEIGHT
- ↓
- DATABASE

This is extremely valuable for:

- palay
- corn
- fertilizer

- feed
- coffee
- trucking

Budget

₱1.5M–₱4M

depending on capacity/configuration.

31. FORKLIFTS

I'd buy:

2–3 ton diesel/LPG/electric forklift

For:

- rice
- corn
- coffee
- pallets
- fertilizer
- warehouse

Potentially two units as volume grows.

32. PALLET SYSTEM

Standardize your operation around pallets.

Buy:

- 100–300 pallets
- pallet jacks
- forklift
- pallet racks

Now your warehouse becomes a logistics operation.

33. SECURITY

Because you're building an expensive equipment yard:

CCTV

NVR

perimeter lighting

gates

fencing

access control

GPS trackers

for:

- tractors
 - trucks
 - excavator
 - combines
-

34. OFFICE / OPERATIONS CENTER

Build a small:

Farm Operations Center

Include:

- office
- conference room
- equipment monitoring
- network rack
- CCTV wall
- farm dashboard
- accounting
- inventory
- dispatch
- agricultural records

You can run the entire estate from here.

35. LAB

This is something I would seriously consider because you have the capital.

Small agricultural QC laboratory:

Grain

- moisture meter
- grain analyzer
- test weight
- impurity analysis

Rice

- milling recovery
- broken percentage
- whiteness
- grain dimensions

Coffee

- moisture
- density
- sample roasting
- cupping setup

Soil

You can do field screening but outsource full laboratory analysis.

Budget

~~₱500k~~–~~₱2M~~

36. AGRICULTURAL DRONE

I'd buy one eventually.

Use it for:

- mapping
- crop scouting
- NDVI/multispectral later
- drainage analysis
- irrigation inspection
- pest hotspots
- crop health

A spraying drone is useful too, but:

Don't buy one first.

Hire a drone operator until you have enough acreage to justify ownership.

37. VEHICLE / EQUIPMENT YARD

Build:

Covered equipment shed

Large enough for:

- tractors
- combines
- implements
- trucks
- sprayers

Don't park million-peso equipment outside in tropical rain.

38. FERTILIZER / CHEMICAL STORAGE

Separate building.

Include:

- ventilation
- spill containment
- locked access
- PPE
- emergency shower/eyewash where appropriate
- fire protection
- inventory management

Don't mix chemicals with food/grain storage.

39. WORKER FACILITIES

Build:

- toilets
- showers
- changing room
- drinking water
- rest area
- lunch room
- first aid
- PPE storage

You are building a professional operation, not a roadside farm.

40. NURSERY

I'd build a centralized nursery capable of producing:

- coffee
- fruit trees
- shade trees
- replacement plants
- vegetables

Budget

~~₱500k~~–~~₱2M~~

41. FENCING

Across strategically important properties:

- perimeter fencing
- gates
- cattle exclusion
- equipment areas

- nursery
- coffee orchard
- warehouse

Not every hectare needs expensive fencing.

Prioritize high-value assets.

42. FARM WATER STORAGE

I would consider:

Farm ponds

and/or

Reservoirs

These become extremely valuable during dry periods.

Potentially:

₱1M–₱5M+ per significant water project

depending on earthworks and capacity.

43. FARM SOLAR

I like this idea for you.

Not because solar is automatically cheaper.

Because your farm has predictable daytime loads:

- pumps
- dryers
- mill
- workshop
- warehouse
- refrigeration
- office

Design the electrical system around:

solar → daytime loads

and:

grid/generator → backup

rather than trying to make the entire farm off-grid.

44. THE BIG SHOPPING LIST

Here's the condensed master list.



FARM MACHINERY

- 50–60 HP 4WD tractor
 - 70–90 HP 4WD tractor
 - 30–40 HP compact tractor
 - rotary tiller
 - disc harrow
 - plow
 - land leveler
 - subsoiler
 - ridger
 - mower/slasher
 - front loader
 - forks
 - trailers
 - fertilizer spreader
 - boom sprayer
 - precision seeder
 - rice transplanter
 - corn planter
 - rice combine
 - corn harvester
 - mini excavator
 - skid steer/loader
-



RICE

- rice seed cleaner
 - precision seeder
 - transplanter
 - combine
 - grain cleaner
 - moisture meters
 - 6-ton-class dryer
 - grain conveyors
 - grain elevators
 - storage bins
 - rice mill
 - de-stoner
 - husker
 - separator
 - whitener
 - polisher
 - grader
 - color sorter
 - packaging machine
-



CORN

- pneumatic corn planter
 - corn sheller
 - husker-sheller
 - corn dryer
 - cleaner
 - hammer mill
 - corn mill
 - conveyors
 - grain bins
 - bagging machine
 - moisture meters
-



COFFEE

- nursery
 - seedlings
 - shade trees
 - irrigation
 - pruning equipment
 - sprayers
 - cherry sorting tables
 - depulper
 - fermentation tanks
 - washing system
 - drying beds
 - solar tunnel dryer
 - mechanical dryer
 - moisture meter
 - huller
 - green coffee storage
 - sample roaster
 - commercial roaster
 - grinder
 - packaging machine
-



PROCESSING

- rice mill
- corn mill
- coffee processing
- dryers
- grain cleaners
- color sorter
- conveyors

- elevators
 - bagging
 - palletizing
 - warehouse
 - cold room
 - weighbridge
-



WORKSHOP

- welding machine
 - plasma cutter
 - air compressor
 - hydraulic press
 - drill press
 - bench grinder
 - metal lathe
 - milling machine
 - mechanic tools
 - diesel diagnostic tools
 - hydraulic hose machine
 - spare-parts inventory
 - lubrication system
-



WATER

- wells
 - pumps
 - solar pumps
 - diesel backup pump
 - storage tanks
 - reservoirs
 - irrigation pipe
 - valves
 - filters
 - sprinklers
 - drip
 - rice field gates
 - drainage
 - culverts
 - farm ponds
-



ENERGY

- solar PV
- batteries
- inverters

- diesel generator
 - electrical distribution
 - mill power
 - dryer power
 - pump power
 - workshop power
-



TECHNOLOGY

- farm weather station
 - soil sensors
 - water-level sensors
 - grain sensors
 - RTK/GPS
 - drone
 - farm cameras
 - network
 - internet
 - server/NAS
 - farm-management software
 - accounting
 - inventory system
 - GPS equipment trackers
-



LOGISTICS

- pickup
 - 4×4 utility vehicle
 - 6-wheeler
 - 10-wheeler
 - tractor trailers
 - forklift
 - pallet jacks
 - pallets
 - weighbridge
 - loading dock
-



BUILDINGS

- farm operations center
- equipment shed
- workshop
- rice warehouse
- corn warehouse
- coffee processing building
- dryer building

- fertilizer storage
- chemical storage
- nursery
- worker facilities
- security building
- fuel station
- laboratory



WHAT I WOULD ACTUALLY SPEND

You told me:

"I have enough funds to deploy any possible farming scenario."

So I wouldn't optimize for the absolute cheapest system.

I'd optimize for:

reliability + ownership + automation + scalability + local serviceability.

I would consider three stages.

Stage	Approximate CAPEX	Objective
Stage 1	₱10–20M	Rehabilitate land + pilot farms
Stage 2	₱30–60M	Serious integrated farm operation
Stage 3	₱75–150M+	Regional agricultural hub

These are **planning envelopes, not vendor quotations**. The actual number will depend heavily on acreage, existing mill condition, building condition, electrical capacity, water sources and machine specifications.

For perspective, Philippine public procurement already shows how quickly machinery costs add up: one recent rice-combine procurement was ₱9.6M for four units, while a modern RPS2 facility with two 6-ton dryers and a 2–3 t/hour rice mill was reported at ₱60.9M.



WHAT I WOULD DO IN YOUR SITUATION

This is the most important part.

I would not immediately spend ₱100M.

I'd spend approximately:

₱10–15M on Phase 1

and spend the first year discovering what your family's land can actually produce.

Phase 1:

1. Map all properties

↓

2. Soil-test all properties

↓

3. Determine water availability

↓

4. Survey elevations

↓

5. Assess old mill

↓

6. Select pilot parcels

↓

7. Rehabilitate access/drainage

↓

8. Buy one serious tractor

↓

9. Buy implements

↓

10. Establish rice + corn + coffee demonstration blocks

↓

11. Install weather/data system

↓

12. Contract harvesting initially

↓

13. Contract drying initially

↓

14. Measure economics

↓

15. Decide what deserves millions of pesos of additional CAPEX



BUT YOUR REAL ASSET IS NOT THE LAND

I think this is the insight worth emphasizing.

Your family has something most new farmers don't have:

A 1940–era agricultural operating history in Merida.

That means the opportunity isn't:

"Rigel becomes a farmer."

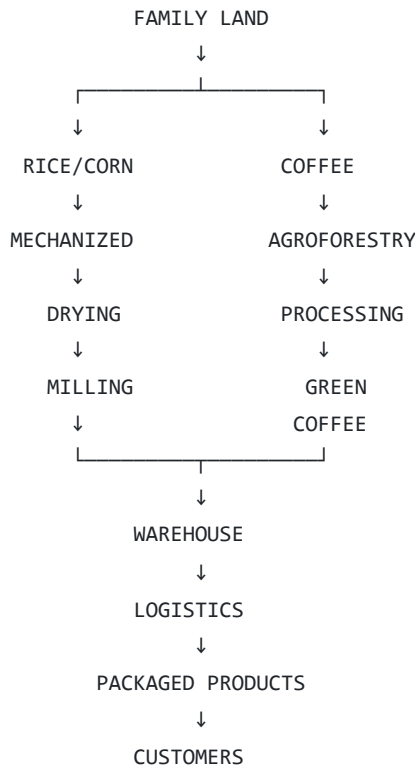
It's:

Rigel rebuilds the family's agricultural platform using 2026 technology.

Your parents' generation had:

land → rice/corn → mill → market

You could build:



That's not just farming.

That's an **agricultural value chain**.

And the timing is unusually favorable: DA's 2026 programs are explicitly pushing mechanization, post-harvest infrastructure and private-sector participation; Region 8 specifically lists rice milling, drying, warehouses and machinery as priority infrastructure. ([EV Regional Office](#))

One thing I would change from my earlier recommendations

Earlier I told you for a **single acre**:

Hire the machinery.

Given what you've now told me, I would revise that.

If you have **multiple properties and potentially hundreds of acres of family land**, I would move toward:

OWN THE CORE MACHINERY.

Hire specialized equipment that doesn't get enough utilization.

Own

tractor + implements + excavator + loader + irrigation + dryers + mill + warehouse + trucks + workshop

Hire initially

specialized harvesting equipment, drones, specialized processing, peak-season labor

Then, as acreage expands:

buy the equipment that reaches sufficient annual utilization.

Your first shopping trip in Leyte

I would actually start locally rather than shopping online.

I'd visit:

- Cca Agrivet in Merida for local farm supplies
- Hapete Agricultural and Poultry Supplies in Merida
- DCV Agricultural Machinery Solutions in Ormoc
- Kubota Ormoc
- ADAMCO Ormoc City
- John Deere Tractor in Ormoc

And I would **not buy anything major during the first visit.**

I'd tell them:

"I am rebuilding a family agricultural operation in Merida. We have multiple landholdings and an old rice/corn milling operation. I want a complete mechanization and post-harvest plan, including equipment, service, parts availability and operator training."

That will get you a very different conversation from:

"I want to buy a tractor."

The next step I recommend

Don't buy anything yet.

Let's turn this into an actual **Merida Agricultural Master Plan.**

Give me whatever you know about your family's properties—even approximate:

Property 1: location + approximate hectares + current condition

Property 2: location + approximate hectares + current condition

Property 3: etc.

And especially:

1. **How many total hectares do your family lands represent?**
2. Which properties are **flat/lowland** versus **hilly/upland**?
3. Which have **irrigation/water access**?
4. Where exactly is the **old rice/corn mill** and what condition is it in?
5. Does the old mill building/equipment still exist?
6. Are the properties titled/owned by the family, or leased/tenanted?

With that, I can build you a **10-year Leyte Agricultural Master Plan**—property-by-property allocation of **rice, corn, coffee, coconut/agroforestry and experimental crops**, followed by the **exact CAPEX sequence, equipment fleet, processing hub, staffing model and estimated ₱ investment by year**.

That would be a much better use of your retirement capital than simply buying a collection of farm machines.

Build a 10-year Leyte Agricultural Master Plan

10-Year Leyte Agricultural Master Plan

2026–2035 | Merida Agricultural Hub + Satellite Farms

You are in an unusual position: **the land already exists, the family has an agricultural-processing history dating to 1940, you have a residence in Merida, and capital is not the primary constraint.**

That changes the strategy completely.

I would **not** build this as a traditional “farm.” I would build it as a **modern agricultural operating company centered on the old family Rice & Corn Mill**, with your scattered properties functioning as satellite production farms.

The objective over 10 years is:

Turn underutilized family land into a mechanized, data-driven, vertically integrated agricultural business that produces, dries, mills, stores, transports and eventually brands its own products.

PhilRice itself is moving toward modern, mechanized, precise and data-driven rice production, while PHilMech's current programs include tractors, combines, drying systems and rice-processing infrastructure. ([PhilRice](#)) □

1. THE 2035 VISION













By 2035, I would want you to have:

PRODUCTION

- Mechanized rice farms
- Mechanized corn farms
- Coffee plantations
- Selected high-value crops
- Trial plots for additional crops
- Agroforestry/conservation areas

PROCESSING

- Modern rice mill
- Corn mill
- Grain cleaning
- Grain drying
- Grain storage
- Coffee processing
- Packaging

LOGISTICS

- Farm roads
- Trucks
- Trailers

- Loading areas
- Central warehouse
- Equipment yard

TECHNOLOGY

- GPS/RTK
- GIS farm maps
- Weather stations
- Soil monitoring
- Moisture sensors
- Drone scouting
- Digital farm records
- Equipment telematics
- Inventory management

ENERGY

- Grid
- Solar
- Battery where economically justified
- Generator backup
- Biomass/rice-hull utilization

ORGANIZATION

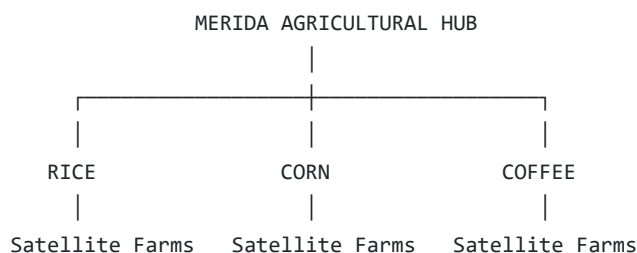
- General Manager
- Farm manager
- Machinery manager
- Agronomist
- Mill/process manager
- Mechanics
- Operators
- Accounting/admin
- Seasonal labor

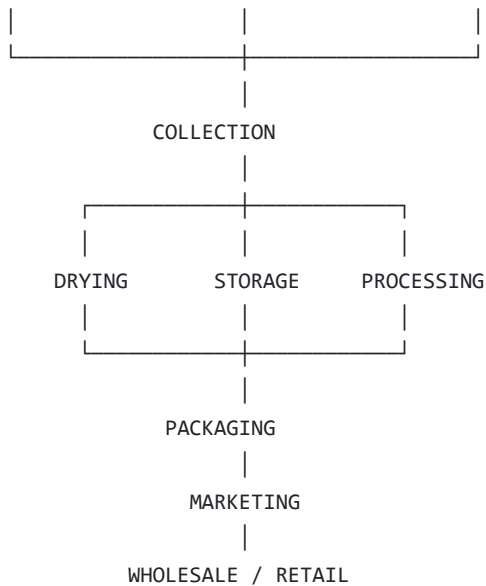
2. THE FUNDAMENTAL DESIGN

Don't think:

Farm A + Farm B + Farm C

Think:





This is the most important decision in the entire plan.

The farm should feed the hub.

The hub should not merely process your own production. Eventually, you can process neighboring farmers' crops too.

That gives you **three businesses**:

1. Farming
2. Agricultural processing
3. Agricultural services/trading

3. YOUR 10-YEAR ROADMAP

PHASE I — YEARS 1–2

DISCOVER + REBUILD

2026–2027

Don't rush into planting every acre.

The first two years are about understanding what you actually own and rebuilding the agricultural infrastructure.

Objective

Turn unknown land into quantified agricultural assets.

YEAR 1 — THE LAND AUDIT

Step 1 — Map every property

Create one master GIS database.

For every parcel record:

- GPS boundaries

- hectares
- elevation
- slope
- soil
- drainage
- road access
- water availability
- electrical access
- current vegetation
- ownership/title
- tax status
- existing structures
- historical crop
- flood risk
- typhoon exposure

Give every parcel an ID:

MERIDA-001
MERIDA-002
MERIDA-003
...
LEYTE-017

Then create a digital map.

4. CLASSIFY EVERY HECTARE

Every piece of land gets placed into one of five categories.

Category	Use
A	Rice
B	Corn
C	Coffee/perennial
D	High-value crops
E	Conservation/forest/infrastructure

Do not decide the crop first.

Decide what the land can physically support first.

5. YEAR-1 SOIL AND WATER PROGRAM

Every productive parcel gets:

Soil

- pH
- organic matter
- N
- P
- K
- micronutrients
- texture
- drainage assessment

Water

- rainfall
- surface water
- wells
- irrigation potential
- flood risk
- dry-season availability

For rice, use nutrient-management tools rather than simply applying fertilizer according to habit. PhilRice promotes tools such as MOET and other decision-support approaches. ([PhilRice](#)) □

6. YEAR-1 REBUILD THE FAMILY MILL

This should be your **first major industrial project**.

The 1940 family mill is not simply an old building.

It is your:

Agricultural infrastructure asset + family history + future business platform.

Bring in a professional milling engineer.

Perform:

- structural inspection
- electrical inspection
- motor inspection
- bearings
- belts
- shafts
- elevators
- conveyors
- husker
- separator
- whitener
- polisher
- grader
- dust collection
- electrical controls
- weighing
- dryer compatibility

Then make the decision:

RESTORE

or

REBUILD

or

BUILD NEW BESIDE IT

My bias would be:

Preserve the historic mill if practical, but don't allow nostalgia to dictate industrial engineering.

The old mill can become a museum/heritage component while the new processing line operates beside it.

7. YEAR-1 PILOT FARM

Don't initially cultivate everything.

Create a **demonstration farm**.

I'd start approximately:

Rice

5–10 ha

Corn

5–10 ha

Coffee

2–5 ha

High-value crops

1–2 ha

The exact acreage depends on your actual land inventory.

The objective isn't maximum production.

It is to establish your **standard operating procedures**.

8. THE FARM OPERATING SYSTEM

Every field gets a digital record.

For example:

FIELD: MERIDA-007

Area: 8.4 ha

Crop: Corn

Hybrid: XXXXX

Planting date: XXXXX
Seed rate: XXXXX
Fertilizer: XXXXX
Rainfall: XXXXX
Irrigation: XXXXX
Spraying: XXXXX
Harvest: XXXXX
Yield: XXXXX
Moisture: XXXXX
Revenue: XXXXX
Cost: XXXXX
Profit: XXXXX

After five years you will have something extremely valuable:

your own Leyte agricultural database.

9. YEAR 2 — MECHANIZATION

Once the land has been mapped, begin building the core machinery fleet.

Core fleet

Tractors

- 30–40 HP
- 50–60 HP
- 70–90 HP

Implements

- rotary tiller
- disc harrow
- moldboard/plow
- land leveler
- subsoiler
- ridger
- mower/slasher
- fertilizer spreader
- boom sprayer
- seeder
- planter
- trailer

Construction

- 3–5 ton excavator
- loader/skid steer
- grading equipment

Transportation

- pickup
 - farm utility vehicle
 - 6-wheeler
 - tractor trailers
-

10. DON'T BUY EVERYTHING

This is one of the most important financial rules.

OWN

Equipment that gets used constantly:

- tractors
- basic implements
- trailers
- excavator
- loader
- sprayers
- irrigation equipment
- dryers
- milling equipment
- trucks

CONTRACT/HIRE

Equipment with low annual utilization:

- specialized combine capacity
- specialized excavation
- large earthmoving
- specialized harvesting
- aerial spraying
- certain drones
- unusual processing equipment

The Philippine government itself continues to deploy tractors, combines and other mechanization equipment, so your fleet should be designed around equipment that is actually serviceable in the Philippine environment. ([PhilMech](#)) □

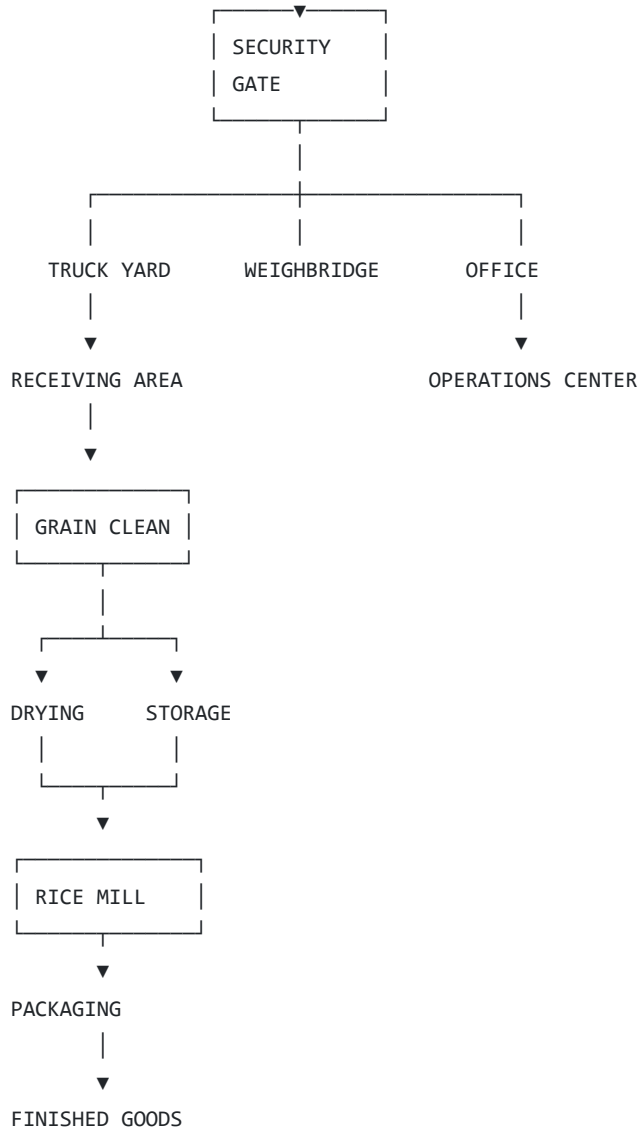
11. YEARS 2–3

BUILD THE AGRICULTURAL HUB

Now construct the permanent Merida facility.

HUB MASTER PLAN

MAIN ROAD
|



Separate coffee processing from grain processing.

12. RICE DIVISION

Production

Use:

- certified seed
- appropriate hybrids/inbreds
- precision/direct seeding where suitable
- mechanized land preparation
- proper fertilizer management
- AWD where appropriate
- combine harvesting

PhilRice specifically identifies mechanized direct seeding as a way to reduce labor requirements, and its current MP seeder can serve rice, corn and mungbean. ([PhilRice](#))

13. RICE POST-HARVEST

This is where I would spend serious money.

Build:

- receiving pit
- weighbridge
- moisture testing
- pre-cleaner
- dryer
- grain cleaner
- elevators
- conveyors
- storage bins
- warehouse
- husker
- separator
- whitener
- polisher
- grader
- color sorter
- packaging line

PhilRice's equipment portfolio includes seed cleaners, micromills and multicrop dryers, illustrating how drying and cleaning can be integrated into a modern post-harvest system. ([PhilRice](#))

14. CORN DIVISION

Corn becomes your second mechanized annual crop.

Production

- soil mapping
- hybrid selection
- precision planting
- fertilizer prescription
- mechanized cultivation
- scouting
- mechanized harvest
- moisture measurement

Processing

Build capability for:

- corn shelling
- cleaning
- drying
- grading
- milling

- corn grits
- cornmeal
- animal-feed ingredients

PhilMech's 2026 Leyte technology briefing specifically demonstrated a pneumatic corn planter and corn mill, among other agricultural technologies. ([PhilMech](#))

15. COFFEE DIVISION

Coffee is your **long-duration asset**.

Unlike rice and corn, you're planting an orchard.

Years 1–2

Nursery

Years 2–4

Planting

Years 4–6

Production begins

Years 6–10

Maturation and optimization

The Philippine Coffee Industry Roadmap identifies low productivity, aging trees, soil fertility, pest/disease management and inadequate postharvest facilities as major industry constraints. ([Ag Department Portal](#))

Your advantage is that you can address those problems **from day one**.

16. COFFEE MASTER SYSTEM

Build:

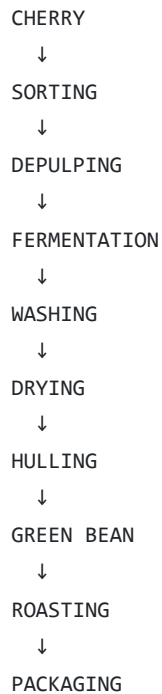
Nursery

- seedbeds
- shade house
- irrigation
- propagation tables
- potting area

Plantation

- access roads
- drainage
- irrigation
- shade trees
- windbreaks
- erosion control

Processing



Don't build a giant coffee plant immediately.

Build processing capacity **as the orchard expands**.

17. YEARS 3–5

SCALE THE FARM

This is where the project transitions from experiment to business.

Target:

Production

- expand rice
- expand corn
- establish coffee blocks
- add selected high-value crops

Infrastructure

- additional dryers
- grain storage
- warehouse
- irrigation reservoirs
- farm roads
- equipment shed
- workshop

Operations

Begin running the farm like a company.

18. CREATE COST CENTERS

This is extremely important.

Your accounting system should have:

RICE
CORN
COFFEE
VEGETABLES
MILLING
DRYING
WAREHOUSE
TRANSPORT
EQUIPMENT
RETAIL

Every tractor hour gets a cost.

Every hectare gets a cost.

Every ton gets a processing cost.

Every truck trip gets a cost.

This prevents the classic agricultural problem:

"We harvested a lot, so we must have made money."

19. YEARS 4–6

BUILD THE WATER SYSTEM

Water becomes one of your most important long-term assets.

Build a network of:

- farm ponds
- reservoirs
- wells where legally/technically appropriate
- pumps
- solar pumping
- diesel backup
- pipelines
- storage tanks
- irrigation valves
- drainage canals
- flood-control structures

Don't design each farm independently.

Create a **Leyte Farm Water Master Plan**.

20. YEARS 4–6

BUILD THE ENERGY SYSTEM

Your agricultural hub will consume substantial electricity.

Design:

Grid

Primary power

Solar

Daytime loads

Battery

Only where economically justified

Generator

Emergency/critical processing

Biomass

Long-term opportunity

Rice processing creates rice hulls, which can potentially become a useful energy resource. PhilRice has researched rice-hull-based energy systems, including applications for water pumping. ([PhilRice](#))

21. YEARS 5–7

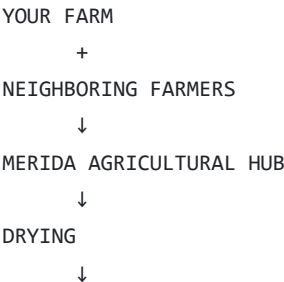
VERTICAL INTEGRATION

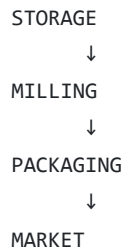
Now you stop thinking only about farming.

You become an **agricultural processor**.

Buy crops from neighboring farmers.

For example:





This is potentially more scalable than simply acquiring more land.

22. THE FARM CAN BECOME A SERVICE BUSINESS

You could eventually offer:

Custom tractor work

"₱X/hectare"

Planting

"₱X/hectare"

Harvesting

"₱X/ton"

Drying

"₱X/ton"

Storage

"₱X/month"

Milling

"₱X/kg"

Trucking

"₱X/trip"

You therefore monetize the machinery **even when your own farms don't need it.**

23. YEARS 6–8

BRAND DEVELOPMENT

Once the physical operation works, create brands.

Potential product architecture:

RICE

Merida Heritage Rice

or another brand developed after market testing.

Products:

- premium rice
- regular rice
- brown rice
- specialty rice

CORN

- corn grits
- cornmeal
- feed ingredients

COFFEE

- green beans
- roasted beans
- ground coffee
- specialty coffee

The 1940 family history can become a legitimate brand story:

A family agricultural enterprise in Merida, Leyte — continuing a farming and milling tradition that began in 1940.

That is considerably more powerful than creating an anonymous commodity brand.

24. YEARS 7–8

DATA FARM

By now you should have several years of proprietary data.

Build a dashboard.

FARM DASHBOARD

LEYTE AGRICULTURAL OPERATIONS		
Rice	72 ha	
Corn	54 ha	
Coffee	18 ha	
Other	8 ha	
Rainfall	2,431 mm	
Irrigation	87% coverage	
Rice yield	X.X t/ha	
Corn yield	X.X t/ha	
Coffee yield	X.X kg/ha	
Machine utilization:	XX%	
Dryer utilization:	XX%	

Warehouse: XX%
EBITDA: ₱XXXX

Eventually, AI can analyze:

- yield
- rainfall
- fertilizer
- planting date
- disease
- machinery
- costs
- weather
- market prices

and recommend what to plant and when.

25. YEARS 8–9

REGIONAL AGRICULTURAL HUB

At this point, ask a much bigger question:

Why should the operation process only your own crops?

You could become a **private agricultural service center for western Leyte**.

Farmers bring you:

Palay

- drying
- storage
- milling

Corn

- drying
- shelling
- milling

Coffee

- processing
- drying
- hulling

You charge processing fees.

26. YEAR 9

PROFESSIONALIZE THE COMPANY

By now, **you should not be the daily farm manager.**

You are 69.

Your role should become:

OWNER / CHAIRMAN

You review:

- monthly financials
- farm performance
- capital allocation
- strategic projects
- land utilization
- management performance

The operation should run without you.

27. YEAR 10 — 2035

THE END STATE

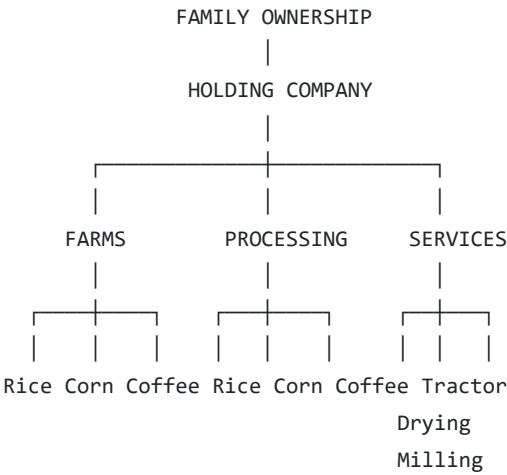
Your target is not:

"I own a lot of farm equipment."

It is:

"I own an integrated agricultural enterprise."

The mature organization might look like this:



28. CAPITAL DEPLOYMENT

I would **not** deploy your entire agricultural capital in Year 1.

Instead:

Period	Strategic Investment
Years 1–2	₱10–20M
Years 2–3	₱15–30M
Years 3–5	₱20–40M
Years 5–7	₱15–30M
Years 7–10	₱20–50M+

10-year envelope

Approximately ₱80–170M+

This is a **planning envelope, not a quotation.**

You could spend considerably more, but I would only release additional capital when the previous stage proves itself.

29. YOUR CAPEX PRIORITY

If I were allocating your money, my priority would be:

TIER 1 — ABSOLUTE PRIORITY

- 1. Land survey/GIS
- 2. Soil testing
- 3. Water assessment
- 4. Farm roads
- 5. Drainage
- 6. Irrigation
- 7. Equipment shed
- 8. Workshop
- 9. Tractor fleet
- 10. Core implements

TIER 2

- 1. Grain dryer
- 2. Warehouse
- 3. Grain storage
- 4. Weighbridge
- 5. Trucks
- 6. Corn processing
- 7. Rice mill modernization
- 8. Generator
- 9. Solar
- 10. Farm management system

TIER 3

- 1. Coffee nursery

- !2. Coffee plantation
- !3. Coffee processing
- !4. Packaging
- !5. Cold storage
- !6. Laboratory
- !7. Drone
- !8. RTK/GPS
- !9. Advanced sensors

TIER 4

- !0. Branded products
- !1. Retail
- !2. Regional processing
- !3. Farmer aggregation
- !4. Contract farming
- !5. Agricultural services

30. THE MOST IMPORTANT INVESTMENT: WATER + DRAINAGE

If I had to choose between:

another tractor

and

proper drainage/irrigation infrastructure

I'd frequently choose the latter.

A tractor can sit idle.

Bad drainage can destroy a crop.

No water can destroy a crop.

Poor access can prevent harvest.

Therefore:

Land + water + roads come before machinery.

31. THE SECOND MOST IMPORTANT INVESTMENT: POST-HARVEST

Don't spend everything producing grain and then sell it immediately after harvest.

Your system should be:

Produce → Dry → Store → Process → Sell

rather than:

Produce → Sell immediately

Drying and post-harvest handling are critical because grain quality and losses directly affect economics. PhilRice continues to emphasize mechanization, drying and improved postharvest handling as part of modern rice production. ([PhilRice](#))

32. YOUR 10-YEAR SCORECARD

Every December, calculate these.

LAND

- hectares owned
- hectares productive
- hectares idle
- hectares irrigated
- hectares mechanized

Target

>90% of suitable land economically utilized by Year 7–8.

PRODUCTIVITY

Rice

- tons/ha
- production cost/ha
- gross margin/ha

Corn

- tons/ha
- production cost/ha
- gross margin/ha

Coffee

- kg/ha
 - quality grade
 - processing recovery
 - selling price
-

33. MACHINERY KPI

Track:

- tractor hours
- fuel/ha
- maintenance cost
- downtime
- utilization

A ₱3M machine that runs 100 hours/year is probably a bad investment.

A ₱3M machine that replaces ₱5M/year of contracted services can be excellent.

34. PROCESSING KPI

Track:

- tons received
 - tons dried
 - tons stored
 - tons milled
 - milling recovery
 - broken rice
 - moisture
 - drying cost
 - electricity/ton
 - processing margin
-

35. THE GOLDEN RULE

Your farm should have **three levels of profitability**:

LEVEL 1

Profit from growing.

LEVEL 2

Profit from processing.

LEVEL 3

Profit from services/aggregation.

That is how the operation becomes resilient.

36. WHAT I WOULD DO IN YOUR FIRST 90 DAYS

If you arrived in Merida tomorrow, **I would not buy a tractor first.**

I would do this:

DAYS 1–30

Land reconnaissance

- locate every property
- GPS every boundary
- photograph every field
- identify access roads
- identify water
- identify existing structures

DAYS 31–60

Engineering

- topographic survey
- soil sampling
- drainage survey
- water assessment
- flood assessment
- electrical assessment
- old mill inspection

DAYS 61–90

Produce five documents:

1. Land Master Map

2. Water Master Plan

3. Farm Development Plan

4. Mill Rehabilitation/Replacement Plan

5. 10-Year CAPEX Plan

Only then start spending serious money.

37. THE FIRST FIVE PROJECTS

If you want me to turn this master plan into an actual execution program, these are the first projects I'd commission:

PROJECT 001

Leyte Land & GIS Survey

Every parcel mapped.

PROJECT 002

Merida Agricultural Hub Master Plan

Locate:

- mill
- dryers
- warehouses
- roads
- equipment yard
- workshop
- fuel
- solar
- offices

PROJECT 003

1940 Family Mill Assessment

Determine:

restore / modernize / rebuild.

PROJECT 004

Water & Irrigation Master Plan

Determine exactly which land can become:

- irrigated rice
- rainfed rice
- corn
- coffee
- other crops

PROJECT 005

₱100M Agricultural Investment Program

Break the capital deployment into individual purchase orders and construction projects.

38. THE BIG IDEA

Your biggest asset isn't actually the tractors.

It isn't the rice mill.

It isn't even the land.

It's the **combination**:

LAND + CAPITAL + FAMILY AGRICULTURAL HISTORY + MILLING INFRASTRUCTURE + MERIDA LOCATION + 10 YEARS OF TIME

That combination gives you the opportunity to build something much more interesting than a hobby farm.

You can build a **small private agricultural industrial system for Leyte**.

And because you don't need the farm to immediately replace your retirement income, you can make decisions based on **long-term productivity rather than short-term survival**.

The 2035 objective

Don't become the biggest farmer in Leyte.

Become one of the **most mechanized, efficient and vertically integrated small-to-mid-sized agricultural operations in Leyte**.

And keep the 1940 family mill at the center of the story.

That is the master plan I would build around your situation. ([PhilMech](#)) □

Next logical step

The plan is now strategic. The next step should be **engineering-level**: take your actual landholdings and turn this into a **2026–2035 hectare-by-hectare master plan**, including **which parcel gets rice/corn/coffee, farm roads, irrigation, machinery requirements, buildings, CAPEX by year, annual operating budget, staffing, expected production and a 10-year cash-flow model**.

