GUIDELINES ON FARM PLANNING

I. Introduction/Summary

Farm planning is built on the principles of **improving production, increasing profits ensuring sustainability and equal distribution of the results of production**. This activity is a necessary tool in attaining the goal of watershed protection and upland farm development envisioned by every UDP assisted community. Farm planning also **helps farmers adopt appropriate enterprises and technologies** fitted to their problems, needs and aspirations. It is a useful tool for the sustainable management of farm resources.

Farm planning considers the diverse bio-physical , socioeconomic, and cultural norms in the upland environment. It is participatory, the agriculture technician must always work with the farmers and let them participate in the process after all the plan is for their farm.

Farm planning involves a series of activities undertaken by the farmer cooperator to produce a plan geared towards:

- **Identifying**
- **Prioritizing**
- **Developing**
- **and Scheduling farm activities**

Farm planning is opportunistic. the agriculture technician must help the farmers seize the potentials of their farm but the technician must also offer assistance in taking hold of external opportunities provided by external institutions. Farmers usually can not or do not want to improve the whole farm if they do not have enough resources or they are uncertain of the outcome. The farm plan can help show what are the potential resources and what can be done with these. The farm plan makes farmers more confident in undertaking activities.

Some important considerations in the conduct of farm planning:

1. Farm plans are usually prepared on a yearly basis. Farmers find it convenient to measure the flow of inputs and outputs by following the annual cropping period of the major cash crops.

   Five, ten year and long term farm plans can be aided by the visioning process. Through farm sketching, the farmers can appreciate the improvement of the present farm set-up and what would these look in the future.

2. The individual farm plan and lay-out should fit in within the over-all land use plan agreed upon by the community. This avoid future land use conflicts (e.g. water rights, road right of way, farm boundaries etc.), dissimilar landscape and negative effects caused by the cropping pattern of neighboring farms (corn vs. abaca/banana etc.) A feature of the farm plan is the designation and confirmation of farm boundaries by indicating the names of owners of neighboring farms.

3. The farm sketch/diagrams and schedule of farm activities done in the course of the farm planning are kept by the farmer. The facilitator makes a copy of the

original sketches, schedules and quantity of inputs/budget analysis. The diagrams serve as a reference for the farmer and these are updated every year.

4. The farm plans will be the basis of the implementing upland community organization in its annual planning and coming up of measurable objectives.

5. The farm plan can be use as a reference by an assisting institution in making decisions and providing appropriate inputs for a proposed a project.

6. The economic implications of implementing the farm plan can be evaluated by calculating the gross margin and net income through a partial budget.

II. Basic Requirements for Farm Planning

It is necessary that there are preparations to be done not only by the farmer but also by the technician/community facilitator. These people who will be assisting the farmer should be competent and well versed with the farm plan process.

Enumerators are discouraged to take up the farm plan activity. The ATs/facilitator should not delegate this sensitive work to people who lack the experience and proper understanding of the process. With the pressure of time and output requirements, the farm plans produced suffers from lack of depth , incomplete data and hasty analysis.

The farm plan is a significant document which can be the basis for decisions and activities that require external assistance and funding.

The successful conduct of the farm plan hinges on the technician and the farmer.

1. The preparedness and ability of the technician/ community facilitator to provide farm planning assistance. The LGU technician must be aware of:
   - the bio-physical conditions of the area,
   - agro-ecological information and its application (e.g. for crop matching)
   - suitable farm technologies for sustainable upland farming (e.g. soil and water conservation measures, multiple-cropping and integrated farming systems)
   - suitability, market flow and prices of market led/high value crops in the area
   - farmer's preference and indigenous farming methods
   - external factors which are affecting cropping system like government programs (i.e. Gintong Ani program, MTADP, GATT, AFMAetc.)

2. The farmer's interest, readiness, availability, ability and time to participate. These can be shown by:
   - Farmers who set their time to join cross-visits (it is important to note those who show curiosity, understanding and who stand out from the group- they can be recruited as key farmers and facilitators for the farm planning process).
   - Participation and attendance in meetings, trainings and workshops
   - Their willingness to learn and adopt innovations in their farms and faithfulness to continue/sustain what has been started.

Additional notes:

- Agriculture technicians who will facilitate the farm planning process must be carefully selected and trained. They must be broad-minded to relate to local social, economic and biophysical issues. They should have good community approach and communication skills. The technician should not delegate his role to hired enumerators not familiar or trained in the farm planning process (e.g. barangay health workers).
- Using the existing farmers' organizations and community groups facilitates the planning process. These organizations should be strengthened through leaders, members' participation in cross-visits, workshops, training and planning sessions.
- It may be necessary to strike compromises with government policies and strategies, adopting these as necessary to suit local conditions.

III. Preparatory Activities Towards Farm Planning

The farm planning process would be effective if the facilitators would consider these activities:

1. The community organizing process which involves consultations, farm visits, establishing farmer-technician relationships, winning the trust and confidence of the farmers, letting them know your purpose and motives, showing them the programme's interest and commitment to help improve their socioeconomic status while achieving the objective of resource management and sustainability.

2. During the community entry and consultation stage, initial cooperators can be identified by observing those:
    - who are interested and willing
    - who have the potentials to influence other farmers
    - who really need assistance

3. The technician should plan and organize cross-site visits, field practicum, and other form of getting group work that could broaden the perspective of the farmers. Field visits could be done in any successful farms, demonstration area and research stations. The technician should guide the farmers during the cross visits, point out what they should observe, learn and apply when they get back to their farms.

4. The technician should initially focus the assistance in farm planning to those who stand out during the cross visit i.e. those who really expressed and showed willingness to learn and adapt sustainable technologies. These key farmers can be recruited as facilitators for future farm planning activities.

5. Once the farm planning process is fully appreciated by the key farmers/ facilitators, they could assist the technician in the conduct of the farm planning with other interested farmers. It would also be better that the farm planning activity will be thought and undertaken by the barangay's agriculture committee. The committee could then help in following-up the individual farm plans; monitor the adoption/agreed

activities contained in the farm plan; and even suggest better ways in approaching development.

IV. Factors that affect decisions for the Farm Plan

What are the factors that must be considered while doing the farm planning?

1. **Biophysical** (source of water for domestic use and plants, drainage, rainfall, cropping systems and pattern, erosion status, livestock's, vegetation, slopes, land use, permanent crops planted, rainy months, elevation, etc.)

   Biophysical Considerations (Already available in the AEZ transect data of CWP)
   i.) Climatic Factors - rainfall, temperature, protection from intense sunlight, etc.)
   ii.) Soil Characteristics – soil texture and depth (physical); nutrient content and acidity/alkalinity (chemical); and presence of beneficial organisms (biological properties of the soil)
   iii.) Topographic Factors - elevation, slope, exposure.
   iv.) Biotic Factors - type of vegetation, pest and disease occurrence.

2. **Socio - cultural** (ethnicity, food crop preference, cropping calendar, available household labor, indigenous beliefs and traditions pertaining to land use and distribution, household size, health problems, social services, peace and order, leadership patterns, local organizations, community celebrations i.e. fiesta, zoning, market access, transport, forest products use, etc.)

   Socio- Economic Consideration
   i.) Social needs – food, medicine, fuel wood, household materials, etc.
   ii.) Economic – crops, fruits, timber etc.

3. **Resource Management/Environmental Considerations** (Watershed rehabilitation / erosion control, sanitation and aesthetic values)

4. **Income related** (regular and seasonal sources, off and on farm sources, market prices, remittances, financing needs, coping strategies)

5. **On farm** (farm size, topography, source of water, existing crops, livestock, household size, distribution of labor, preference, etc.)

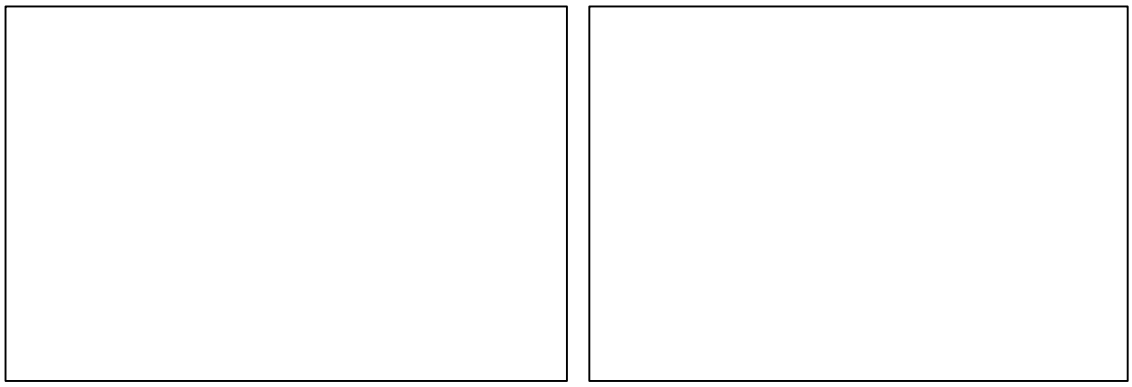
V. Determining Farm Development Options :

1. Compare and check if there are conflicts specially in these fields:
   - Biophysical
   - Socio-cultural
   - Environmental (DENR Policies)
   - Economic factors/ opportunities with potential crops
   - Food production lots
   - Livestock
   - Cropping systems

- and other on farm production systems

2. List down all possible options with the farmer and determine the technical, economic, and social acceptability of the options. These will take the form of activities.

3. Plan in detail the option that the farmer picked by basing the activities on the sketch of the existing (without development) and future (with development) appearance of the farm on a blank paper/map.



Existing Future

4. Indicate farm boundaries and names of neighbors.

5. Determine the duration and schedule of activities for implementing the farm development options. The technician can lay out a rough Gant chart by listing all activities in one column and the schedule (months/time of the year) in adjoining columns. Include also persons involved in the activity.

Sample Farm Plan Schedule of Activities

ACTIVITIES	SCHEDULES/TIMELINES																							PERSON//S RESPONSIBLE
	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	
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2.																								
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7.																								
8.																								
9.																								

10.																							

4. Determine what are the inputs needed, how many, and how much is the cost. Estimate the cost and benefits of the option

5. The technician can suggest possible sources of inputs and funds to develop the proposed farm.

VI. Topics to Guide for the Farm plan

NAME OF FARMER :
SITIO: :
NAME OF FARMER'S GROUP/ASSOCIATION:

1. What are the problems?

Situational Analysis (discussion of the biophysical , Socio-cultural, and economic factors affecting the farm ; what are the farmers problems, needs , issues; what are the opportunities that are available; what are the internal / external resources that may be tapped)

Example :

- Low corn-yield production
- Soil fertility decreasing : erosion
- Poor fencing : crops damaged by stray animals
- lack of fodder for animals
- lack of income
- lack of timber and for fuel wood

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2. What are the Objectives of farm improvements? (Expected Output, yield, income, when to be accomplished)

Farm plan objectives and outputs (i.e. increase income by ___ % , planted __ hills of trees/ coffee, ___ square meters food production plots, __ linear meters of soil & water conservation structures etc..)

Example:

- Short term (1-3 years)
  - Improved soil condition (fertility management and erosion control)
  - Plant multipurpose forage/hedgerow species
  - Improved fencing e.g. live fence of fast growing trees
  - Planting of forest trees on very steep slopes, gullies and marginal areas
  - Improved animal production
  - Identify and strengthen farm-based income generating activities

- Long term (5- 10 years.)
  - Increased Income
  - Tenure is secured
  - Erosion problems is decreased
  - Increase in vegetation

- Increase organic matter content of the soil

3. What are the available resources or potentials in the farm?

Example:

- 3 hectares of land, partially planted with fruit trees; small portion used for vegetalbe plot, animal housing,
- 1 carabao, 6 goats, grazing on marginal lands and tethered in the evening
- Locally available fencing materials (madre-de –cacao, ipil-ipil)

4. What are the areas or sites to be planted (whole or part of the farm)?

5. What are their limitations?

Expected Problems and constraints with the farm Development Options

Example:

- No water supply in the farm or the distance from source is very far
- Farm area located on steep slopes
- 3-4 months dry season ; no activity
- Poor access (farm to market road)
- Intense rainfall during rainy season.

6. What are the Crops and Trees to be planted?

- Crop information can be collected in various ways. The method used depends on the available local resources, purpose and the degree of accuracy needed. Data collection may either through workshops with farmers, individual interviews of farmers by extension agents, or collection by farmers

- Data to Collect
  - Yield
  - Fertilizers and pesticides – management, use, quantities, costs
  - Labor use – days for the different activities, cost per day
  - Other inputs, cost
  - Income, price received, quantities sold
  - Constraints in the cultivation of individual crops
  - Marketing

7. What are the possible combination of crops / planting pattern and distance?

- Upper portion of hill/sloping land
  - Tree crops, fruit and fodder planted in the upper part of the part in wide rows.
- Middle Part
  - Hedgerows spaced appropriately (3 meters in steep slopes) with crops planted in between
  - Grass strips can be maintained in rows as another SWC structure, source of fodder, with forest trees planted along to support timber requirements, etc.
- Lower part and less steep areas
  - Prime cropping area preferably contoured

8. What are the technologies, which needs to be introduced for adoption?

Strategy for implementing the farm plan

- The most appropriate option - determine
- Who, where, how, and when will the farmer develop the farm? (Sketch the development plan on the map). Specify the role of the technician during this period.

- Projected cash flow (get prices of key produce, average cost per hectare per crop or harvest, transport and marketing cost, and other necessary information to calculate the cash flow). Do this for 5 years.

9. What are the seeds and material requirements needed?

- How could the farmers develop his farm using the most appropriate farm development options (i.e. where to get labor, planting materials, tools, etc.)
- Seeds of trees and shrubs
- Plastic bags
- Training on A-frame and in-row tillage
- Nursery Techniques
- Information on introduced species

10. Where can the they get sources of information, technology, seeds and other materials?

- Local Government Units
- Municipal Agriculture
- Department Of Agriculture
- DENR
- NGO's / Private Sectors

11. What are the activities, schedule and person responsible in pursuing the plan.

Example:

Schedules		
Activities	Months	Responsible Person
Farmers' meeting for nursery establishment		Group of farmers
Collect seeds		Group
Construct Nursery		Group
Bagging and planting		Self/ group
Maintain and care of nursery		Self / group
Lay out farm area using A-frame for contouring		Self
Sow seeds and construct contour ditch		
Dig rows for in-row tillage		
etc……		

Checklist on Things to Observe During Farm Planning

Biophysical (from AEZ data)	Production Activities	Soil and Water Conservation Measures	Socio-Economic Factors

Location
- ❑ Farm orientation
- ❑ Distance to water source

Slope

Gradient	Angle
❑ 0 -3% level	(18º)
❑ 4 -8% gently sloping	(2- 5º)
❑ 9 -18% undulating	(5 -11º)
❑ 19 - 30% rolling	(11 -17º)
❑ 30 - 50% steep	(17 - 26º)
❑ >50% very steep	(26º)
❑ 100% slope	(45º)
❑ > 100% drop off	(90 º)

Soil
- ❑ Type/s of Erosion
- ❑ Acidity
- ❑ Organic mater
- ❑ Depth

Climatic conditions
- ❑ Risk factors e.g. flash floods
- ❑ Rainfall and distribution
- ❑ Temperature

Biotic Factors
- ❑ Pest/Weeds
- ❑ Diseases

Area of production for:
- ❑ Cash crops (corn, rice)
- ❑ Legumes
- ❑ Leafy Vegetables
- ❑ Fruit Vegetables
- ❑ Tubers/Root crops

Number of hills of:
- ❑ Industrial crops
- ❑ Fruit trees
- ❑ Forest trees

Area allocated for:
- ❑ Fuel wood trees
- ❑ Forage
- ❑ Hedgerows

Number of heads of:
- ❑ Livestock
- ❑ Draft power
- ❑ Dairy
- ❑ Meat production
- ❑ Egg production

Area used for:
- ❑ Fishpond
- ❑ Pasture/grazing

Cultivation Practices
- ❑ Contour tillage/planting
- ❑ Minimum tillage
- ❑ Zero tillage

Vegetative Practices
- ❑ Hedgerows
- ❑ Grass strips
- ❑ Cover cropping
- ❑ Mulching
- ❑ Windbreak/Boundaries
- ❑ Fallow/land rest
- ❑ Wood lots

Structural Practices
- ❑ Bench terracing
- ❑ Rip raps/Stone walls
- ❑ Gabions
- ❑ Sediment traps
- ❑ Drainage ditches
- ❑ Irrigation
- ❑ Check dams

Marketing
- ❑ Market (local/external)
- ❑ Merchant/Assembler
- ❑ Cooperatives
- ❑ Transport/Roads

Financing Source
- ❑ Merchant/Assembler
- ❑ Money lender
- ❑ Credit Institution

Support Services
- ❑ Government/Private assistance
- ❑ Technical inputs, information

Government Policy
- ❑ Policies/incentives
- ❑ Rules & regulations

Tenure
- ❑ Land tenure status
- ❑ Share arrangement benefit distribution

Labor Allocation
- ❑ On farm and off farm employment
- ❑ Age/ gender work load
- ❑ Household enterprises

Culture/ Attitudes
- ❑ Food security needs
- ❑ Values & prejudices
- ❑ Household needs
- ❑ Savings
- ❑ Leisure/pastimes inc. gambling and vices