



## Climate-Resilient Agriculture Practices Investment Prioritization Investment Prioritization for Region 2: Integrated Farming System (IFS)

### Overview

Isabela is a first class and the richest and progressive Province in Cagayan Valley Region (Region 2). It has a total land area of 1,241,493 of which 42% of the area is covered by agriculture. The province is popularly known also as the Regional Trade and Industrial Center of Northeastern Luzon. It is the country's top corn producer with a physical area of 235,998 ha and second in census in rice production with physical area of 235,998 hectares and 339, 605 hectares respectively. However, due to the poor infrastructural development and its geographical location, Northern Isabela is particularly vulnerable to climate change. From 2003-2011,nine (9) super typhoons hit the whole province of Isabela that caused large damageto the agricultural industry and human lives. In 2016, the Province of Isabela was heavily devastated by typhoon Lawin with ₱2.5 billion recorded cost of damage in the agriculture sector.

### Prioritized CRA Practice

Integrated farming is a whole management system which aims to deliver more sustainable agriculture that includes crop, livestock, fish, tree crops, plantation crops and etc. Basically, it refers to agricultural systems that integrate livestock and crop production.

Integrated farming system has been prioritized due to its numerous benefits and advantages in terms of productivity per unit area, profitability, potentially and sustainability, balance of food, income rounds the year, adoption of new technology, increasing input efficiency and etc. ([www.agriinfo.in](http://www.agriinfo.in); *My Agriculture Information Bank*)

Integrated farming system practice was identified by the assistance of the Office of the Municipal Agriculture (MAO) of the two municipalities. During the field visits, the local farmer leaders recognized this practice as a resilient practice due to increase economic yield per unit area per unit time by virtue of intensification of crop and allied enterprises.



## Data Gathering and Methodology

Focus group discussions (FGD) and key informant interview schedule were employed to gather primary data from the Municipality of Delfin Albano and Cabagan. With the assistance and recommendations of the Local Government Units (LGUs) visited, the team have identified 5 farmers practicing integrated farming. Five (5) conventional farming practitioners were interviewed in order to compare the current CRA and the old (conventional) farming practice. The data gathered were analyzed using the Cost-Benefit Analysis (CBA) (*not the CBA software developed by the CIAT*). In this study, sensitivity analysis have not included or considered due to

## Results

The results of analysis indicate that the Net present Value (NPV) of the practice is PhP **110,829** and its Internal Rate of Return (IRR) is **118%**. The Social Net Present Value (SNPV) is PhP **124,128.73** while the Social Internal Rate of Return (SIRR) is 132%. The Initial Investment is PhP **607,790.78** with a payback period of three (1) year.

Also, using the CBA trade-offs, the team have also analysed and produced the profitability of conventional practice in comparison for the prioritized CRA practice.

The result of conventional practice indicates that the Net Present Value (NPV) is PhP **8300** and its Internal Rate of Return (IRR) is **110%**. The Social Net Present Value (SNPV) is **PhP 9296** while the Social Internal Rate of Return (SIRR) is **123%** with a 1 year payback period.

## Recommendations

This practice should be promoted and adopted by other farmers.

## References

1. [www.agriinfo.in](http://www.agriinfo.in): My Agriculture Information Bank, 2015
2. Philrice 2014: Chief Lauds Isabela farmers.
3. Official website: Isabela Province

CBA tool summary Farm (3 ha) results	Net present value (NPV)	Internal Rate of Return (IRR)	Payback Period	Initial Investment	Social NPV	Social IRR
Unit	₱	%	Year/s	₱	₱	%
Value	110,829	118%	1	607,790.78	124,128.73	132%
Conventional Practice	₱ 8300	110%	1	81,244	₱9296	123%



