

youth & agriculture

The Infome diary Campaign in the Philippines



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with

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Disclaimer: All positions and views expressed in this book are sole responsibilities of the authors and do not claim to represent the Philippine Rice Research Institute (PhilRice), Department of Education (DepEd), or CGIAR Research Program on Climate Change, Agriculture, and Food Security (CGIAR-CCAFS).

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Foreword

That young people are leaving rural areas is a global fact of life and with this comes the reality that they are not choosing agriculture as an option for college. Using information poverty as an issue in remote farming communities, the authors Jaime A. Manalo IV with Katherine P. Balmeo, Jayson C. Berto, and Fredierick M. Saludez pioneered the Infomediary Campaign in the Philippines. It is a most innovative way of researching the problem using high school students as information providers; their schools in 108 sites as the nucleus of agricultural science, engaging their parents, their teachers, school officials, the Philippine Rice Research Institute, the Department of Agriculture Regional offices III and XII and the Tech-Voc Unit of the Department of Education as partners. The early conception about the Campaign was how to mobilize young people as information providers using ICTs in agriculture. These are the PinoyRice, a portal that contains massive information on rice, and the PhilRice Text Center, an SMS platform that caters to all queries on rice farming. The Facebook group is a way for participants to interact with one another after their training. The messages sent by students to the text center are monitored as in crowdsourcing. Lessons learned are integrated into the curriculum.

To start with, there is a long distance between the unattractiveness of farming to the youth and efforts to reverse this trend. The Infomediary Campaign addressed to the youth and agriculture carries three objectives:

- To create alternative communication pathways in agricultural extension
- To bring back the love for and science of rice farming among young people
- To promote agriculture as a viable career option for college

With these objectives in mind, the authors defined its approach by what they wanted to achieve. To come up with evidence-based recommendations out of the Campaign, a strong research component is necessary. Hence, the Infomediary Campaign is an action research project in its most engaging pursuit, most completely informative manner, and most encouraging in its results. Read, Surf, and Text are the three main components of the Campaign. The students do not necessarily have to know the answers; they just need to know how to search information from the PinoyRice to establish their credibility as information providers. Moreover, to break their mindset toward agriculture, the Campaign is heavy on fieldwork using a rice garden in school where students can grow rice. This gives them a chance to participate as opposed to being passive receivers of information. There are field days for them to showcase what they have accomplished in their rice gardens.

Successful infomediaries tended to be the grade A students in the school. They have high credibility as infomediaries and have strong leadership qualities as student extensionists. They can be classified in three categories: farming ally, initiator and champion.

The story of the Infomediary Campaign has important lessons to share:

- Teachers are essential to the success of the Campaign and strong support of the school principal and the faculty is among the key strengths of its implementation. Teachers become trainees in rice science.
- Focus on the goal, not on the tools. Information and Communications Technologies (ICTs) are tools to enhance extension work. ICT anxiety exists as a feeling of discomfort in using ICTs.
- Timing of field work must be early in the morning or late in the afternoon to be “tolerable.”
- Some students who participated in the Campaign in one province found themselves in two agriculture schools for college. In another school site, there are 60 students who all proceeded to take agriculture-related courses in college.

What better way to bring rice science to rice farming than through the active participation of young people who are not inclined at first but then after actual experience, have chosen agriculture as a college option. “Introducing students to the relevance and excitement of agriculture as a career option in college will do much in shaping their perceptions and influencing their subsequent behavior towards agriculture”.

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CGIAR-CCAFS) is to be noted for funding the Campaign and the DA-Bureau of Agricultural Research for publishing this book.

GELIA T. CASTILLO

National Scientist

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Special thanks to our reviewers: Dr. Aurora M. Corales (PhilRice), Mr. Rizal M. Corales (PhilRice), Dr. Virgilio T. Villancio (University of the Philippines Los Baños), Professor Cleofe S. Torres (University of the Philippines Los Baños), and National Scientist Dr. Gelia M. Castillo (International Rice Research Institute). Likewise, special thanks to our teammates Argie M. Pagdanganan and Jennifer D. Villaflor for the editorial assistance, and to Mr. Elmer Harold O. Grande for editing the manuscript.

To our families for continued support and understanding, and to God Almighty for guiding us and keeping us safe throughout those never-to-be-forgotten Infomediary trips.

List of Abbreviations

ANHS	Asuncion National High School
APNHS	Agusan Pequeño National High School
ARS	Alcala Rural School
ASBMNHS	Apolinario S. Bernardo Memorial National High School
BAIHS	Bagumbayan Agro-Industrial High School
BAIHS	Balaban Agro-Industrial High School
BNAHS	Balagtas National Agricultural High School
BNHS	Bayanihan National High School
BNHS	Baluan National High School
CCAHS	Corazon C. Aquino High School
CGIAR-CCAFS	Consultative Group on International Agricultural Research Program on Climate Change, Agriculture, and Food Security
CNAHS	Cateel National Agricultural High School
CNVS	Culaba National Vocational School
CRVS	Claveria Rural Vocational School
DA-PhilRice	Department of Agriculture-Philippine Rice Research Institute
DepEd	Department of Education
DNHS	Dingle National High School
EPDGSHI	Elias P. Dacudao Gumalang School of Home Industries
FFHNAS	Fortunato F. Halili National Agricultural School
GBDAIS	Gov. Bado Dangwa Agro-Industrial School
GNAS	Guihulngan National Agricultural School
GRS	Gamu Rural School
INAC	Ilocos Norte Agricultural College
INHS	Ibona National High School
LAIHS	Libon Agro-Industrial High School
LAIS	Leyte Agro-Industrial School
LGU	Local Government Unit
LNFVHS	Libacao National Forestry Vocational High School
LNVHS	Luna National Vocational High School
MAIHS	Mapanas Agro-Industrial High School
MANHS	Maria Aurora National High School
MHSA	Marilog High School of Agriculture
MNAS	Mataragan National Agricultural School
MNHS	Malalag National High School
PNHS	Panan National High School
PRHS	Pilar Rural High School
RAHS	Rogongon Agricultural High School
SAIS	Sumoroy Agro-Industrial School
SJNAIHS	San Jose National Agricultural and Industrial High School
SNPOSA	Samar National Pilot Opportunity School of Agriculture
SPNAHS	San Pascual National Agricultural High School
SSNCHS	Southern Samar National Comprehensive High School
TechVoc	Technical-Vocational Unit

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Introduction

Engaging young people in agriculture is a topic that has been discussed and written about many times in conference proceedings, journal articles, policy briefs, and academic speeches. Yet, it is only in recent years that the decibel of arguments to engage young people in agriculture is at its highest, especially now when there seems to be a scarcity of young people wanting to study agriculture when they enter the university (UN CFS, 2015). This shift in priorities among young people will definitely lead to a scarcity of food producers in the future.

The importance of youth engagement in agriculture is internationally recognized. During the 42nd session of the United Nations Committee on World Food Security (UN CFS) in 2015, a separate session on youth was devoted. The UN CFS noted the massive number of young people around the world, if properly mobilized, can significantly contribute towards efforts relating to poverty reduction, food security, and employment generation. Globally, there have been efforts to actively engage the youth. For instance, in 2014, the Food and Agriculture Organization (FAO) of the United Nations launched the *International Year of Family Farming*.

In 2013, the Philippines enacted *Republic Act 10618* or the *Rural Farm Schools Act*. Among the key priorities of this law is the teaching of agri-fisheries among young people (Philippine Congress, 2013).

The Infomediary Campaign is an initiative in the Philippines to engage young people in agriculture (Manalo et al., 2015a). It is an action research being led by the Philippine Rice Research Institute (PhilRice) in collaboration with the Technical-Vocational Unit of the Bureau of Secondary Schools of the Department of Education and the CGIAR Research Program on Climate Change, Agriculture, and Food Security (CGIAR-CCAFS).

In this book, we will share our experiences in implementing the more than 3-year-old Campaign. This book is divided into three sections. The first section is composed of four chapters. The discussions in this section revolve around introducing the Infomediary Campaign, the issues that it seeks to address, a brief history of the Campaign, and the major components and key activities of the Campaign.

The second part focuses on the how-tos of the Infomediary Campaign. Four key areas are highlighted: distribution of activities in one fiscal year, data collection methods, behaving in rural areas, and how successful participating schools are implementing the Campaign.

The third part deals with the immediate outcomes of the Campaign, some instances of adoption of the technologies promoted, and reflections in doing development work.

It is our hope that this book will guide practitioners working in this area. For agriculture students and professionals, may this book provide them some wisdom on agricultural extension involving young people. We know that there is a dearth of work going on in this area especially in the Philippines. Hence, we wish our work may raise curiosity among scholars to contribute significantly in this discourse so we can improve the way we do things.

Lastly, we dedicate this book to neophytes in agricultural extension, community development, development communication or anyone whose work involves active community engagements. We hope that our reflections in implementing this project will contribute significantly in keeping the passion to create impacts in our rural communities alive.

Part 1

The beginnings of the Infomediary Campaign

This part discusses the birth of the Infomediary Campaign, its overall concept up to the first national training program. It is composed of three chapters:

CHAPTER 1

provides an overview of the Infomediary Campaign.

CHAPTER 2

discusses the issue on youth outmigration from agricultural communities, and the need to re-read outmigration data. This chapter is recommended for scholars interested in youth outmigration from agricultural communities.

CHAPTER 3

introduces the Infomediary Campaign as an initiative to engage high school students to agriculture, particularly on rice farming. This chapter narrates events from piloting to the first national training program. This is recommended for neophytes in the practice of agricultural extension and development work in general.

Bridge going to Bayanihan National High School,
Maria Aurora, Aurora.



Chapter 1

About the Infomediary Campaign

Concept

In general, the Infomediary campaign is an initiative to engage young people in agriculture, particularly in rice farming (Manalo et al., 2014a; 2015a). The logo below sums up the concept of the Campaign. Infomediary is a combination of two words: information and mediation. The bridge design symbolizes the need to address access of farmers to cost-reducing and yield-enhancing information on rice. The Infomediary Campaign operates in some of the remotest rice-farming communities in the Philippines. The blackboard and the chalk (texture of the text)



Figure 1. Infomediary Campaign logo

symbolize the use of the school as the nucleus of agricultural science. The idea is to reach out to the individual households of rice farmers through their children who go to school. These young people must be mobilized to serve as information providers in their rice-farming communities. As infomediaries, they can either read publications, send queries, or search information on rice and share what they found to their farmer-parents or any farmer in their community.

Infomediaries in the larger context

There is a rich literature available on the infomediaries (infomediation) in health (Becker, Crandall, Fisher, et al., 2010; Nagler et al., 2010; Abrahamson, Fisher, et al., 2007, and LaPorta et al., 2007) and public access computing centers (Gould & Gomez, 2010; Ramirez et al., 2013) literature. Schildermann (2002) came up with a list of expectations for infomediaries: (1) capacity to provide information in an accessible format; (2) willingness to share information; (3) ability to get hold of information and adapt it to a local context; (4) experience, education, knowledge, and reliability; (5) accessibility, proximity, and helpfulness; (6) social sensitivity and capacity to involve residents; and (7) leadership qualities, influence, and moral authority. Suffice it to say, the role of infomediaries in the agriculture sector is not well-studied, particularly the informal infomediaries (Gould & Gomez, 2010) as exemplified by those in the Infomediary Campaign.

Objectives

Originally, the Campaign had just one objective, and that was to create alternative communication pathways in agriculture by mobilizing high school students as infomediaries or information providers in their respective rice-farming communities (Manalo, 2013). During the course of implementation, however, and owing to the action research nature of this initiative, it has been found that there are plenty of issues that the Campaign appears to be in the position to address. Hence, the Campaign carries the following objectives:

1. To create alternative communication pathways in agricultural extension
2. To bring back the love for rice farming and its science among young people
3. To promote agriculture as a viable career option for college

The first objective is the original sole objective of the Campaign. It is drawn from the perennial issue of inadequate number of agricultural extension workers (AEWs). Nationwide, there are only 13,285 AEWs who serve more than 2 million rice farmers (Saliot, 2014). Hence, by these numbers alone, it is imperative that alternative communication pathways must be devised to address this gap. This need is all the more heightened if one were to look at the information poverty issue in the remote rice-farming communities.

The second objective is metaphoric, and to some extent, difficult to measure. It is drawn from the team's observation and from what is shown in the literature—that more young people are leaving the rural areas (Punch & Sugden, 2012). If this trend continues, as literature suggests, there could be a scarcity of future food producers.

The Campaign, hence, is envisioned to heighten the appreciation of young people for rice farming. It also aims to promote agriculture as a viable option for college as a response to the dwindling number of students wanting to take agriculture-related courses (Paris et al., 2010).

Approach

The Campaign heavily uses action research to its advantage. There are plenty of reasons for doing this. First, the campaign is initiated by PhilRice, an organization that is at the forefront of generating knowledge on rice farming. Crucial to its function is conducting aggressive research. Second, the implementers are also keen on influencing policies, not just implementing a one-shot campaign. To make effective recommendations, a strong research component is a must. Third, while knowledge generation and policy recommendations are important, there are issues and problems that need prompt actions from the government and private sector. Hence, the Campaign is also bent on implementing solutions.

Partners and Scope of coverage

Since 2012, the Campaign has been a collaboration between the Technical-Vocational Unit of the Department of Education (DepEd) and the Department of Agriculture-Philippine Rice Research Institute. This is brought about by the Memorandum of Understanding between the DepEd and the Department of Agriculture. In the last quarter of 2013, a partnership agreement between PhilRice and the CGIAR Research Program on Climate Change, Agriculture, and Food Security (CGIAR-

CCAFS) was signed. Hence, since last quarter of 2013, the DepEd and CGIAR-CCAFS have been the two major partners of the Campaign.

The Campaign has 108 sites nationwide as of 2015 (Figure 2). From this number, 81 are TecVoc high schools. Most of these schools have already been integrating lessons on cost-reducing and yield-enhancing rice production technologies. More recently, focus has been given to climate-smart rice agriculture in their school curriculum.

In the Infomediary Campaign's website (www.infomediary4d.com), there are 5 videos filmed from different project sites nationwide on the outcomes of the Campaign. Students (infomediaries), teachers, and the farmers in the community gave their testimonies about the Campaign. Most of infomediaries talk about outcomes relating to increased access to information on rice in the participating schools and the farming communities, and instances of adoption of the technologies promoted within the duration of the Campaign. For instance, an infomediary from Bulacan shows how she was able to convince her father and uncle, both farmers, to reduce pesticide use by explaining the concept of helpful and harmful organisms. The outcomes of the Infomediary Campaign are tackled more extensively in the chapter on *Farming communities and the infomediaries*.



The Infomediary Campaign was among the featured projects in a special event during the 42nd session of the Committee on World Food Security in Rome, Italy, 15 October 2015.

(In photo: Campaign Team Lead, Jaime A. Manalo IV, 3rd from left)

The Campaign also figured well in international and local conferences. The complete list of these presentations is in the appendix section of this book. In 2014, experiences from the Campaign were cited in the virtual consultation report on Communication for Development by the World Association of Community Radio Broadcasters and the UN Food and Agriculture Organization (WARCB & UN FAO, 2014).

In 2015, the Campaign was among the featured youth engagement in agriculture projects worldwide in the 42nd session of the United Nations Committee on World Food Security in the Food and Agriculture Organization Headquarters in Rome, Italy (UN CFS, 2015). The team lead was also invited to sit as panelist for Asia during the same session.

REGION 1

- Batac National High School - Bungon Campus
- Batac National High School - Payao Campus
- Batac National High School - Poblacion Campus
- Burgos Agro-Industrial School
- Eastern Pangasinan Agricultural College
- Luna National Vocational High School
- Ilocos Norte Agricultural College
- Speaker E. Perez National Agricultural School

REGION II

- Abulug National Rural and Vocational High School
- Alcala Rural School
- Baggao National Agricultural School
- Bukig National Agricultural and Technical School
- Claveria Rural and Vocational School
- Felipe Tuzon Agricultural School
- Gamu Rural School
- Itawes National Agricultural and Technology School
- Itbayat National Agricultural High School
- Jones Rural School
- Pamplona National School of Fisheries
- San Mateo Vocational and Industrial High School

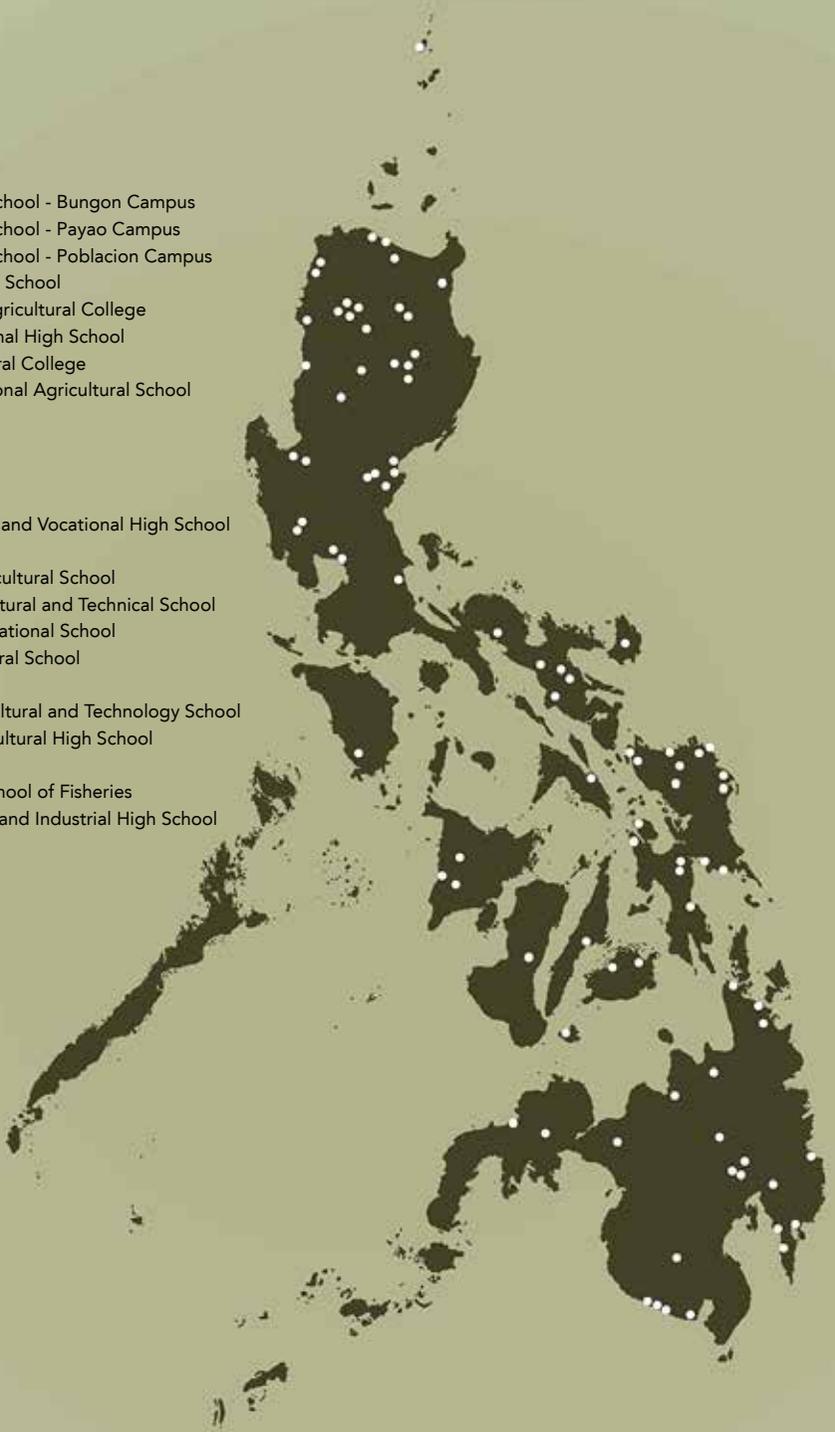


Figure 2. Infomedialy Campaign sites

CAR

Balbalan Agro-Industrial High School
 Eastern Bontoc National Agricultural Vocational High School
 Gov. Bado Dangwa Agro-Industrial School
 Mataragan National Agricultural School
 Nambaran Agro-Industrial National High School
 Northern Abra National High School
 Pilar Rural High School

REGION III

Balagtas National Agricultural High School
 Bayanihan National High School
 Corazon C. Aquino High School
 Floridablanca National Agricultural School
 Fortunato F. Halili National Agricultural School
 Gabaldon Vocational Agricultural High School
 Ibona National High School
 Maria Aurora National High School
 Panan National High School
 Ricardo Dizon Canlas Agricultural School

REGION IV-A

Bondoc Peninsula Agricultural High School
 Siniloan National High School

REGION IV-B

San Jose National Agricultural and Industrial High School

REGION V

Camarines Sur National High School
 Caramoran School of Fisheries
 Libon Agro-Industrial High School
 Partido Agro Industrial National High School
 Palanas National Agriculture High School
 Ragay National Agricultural and Fisheries School
 Tito R. Espinosa Memorial National Agricultural School
 Tiwi Agro-Industrial School

REGION VI

Antique Vocational School
 Cabatuan National Comprehensive High School
 Dingle National High School
 Dueñas General Comprehensive High School
 General Leandro Fullon National High School
 Guihulngan National Agricultural School
 Libacao National Forestry Vocational High School
 Malinao School for Philippine Craftsmen
 San Joaquin School of Fisheries

REGION VII

Alicia Technical Vocational High School
 Bitoon National Vocational High School
 Lazi National Agricultural School
 San Pascual National Agricultural High School

REGION VIII

Basilio B. Chan Mem. Agricultural and Industrial School
 Biliran National Agricultural High School
 Bobon School for Philippine Craftsmen
 Calubian National High School
 Capul Agro-Industrial School
 Carigara School of Fisheries
 Catubig Valley National High School
 Culaba National Vocational School
 General MacArthur National Agricultural School
 Leyte Agro Industrial School
 Lorenzo S. Menzon Agro-Industrial School
 Mapanas Agro Industrial High School
 Mondragon Agro-Industrial High School
 Oras National Agro-Industrial School
 San Antonio Agricultural and Vocational School
 San Isidro Agro-Industrial School
 Salcedo Vocational High School
 Samar National Pilot of Opportunity School of Agriculture
 Silvino Lubos Vocational High School
 Southern Samar National Comprehensive High School
 Sumoroy Agro-Industrial School
 Tacloban National Agricultural School
 Valeriano C. Yancha Memorial Agricultural School
 West Coast Agricultural High School

REGION IX

Molave Vocational Technical School
 Sindangan National Agricultural School

REGION X

Bukidnon National School of Home Industries
 Bunawan Agricultural High School
 Kinoguitan National Agricultural High School
 Rogongon Agricultural High School

REGION XI

Asuncion National High School
 Bagumbayan Agro-Industrial High School
 Cateel National Agricultural High School
 Elias P. Dacudao Gumalang School of Home Industries
 Maria Cristina P. Belcar Agricultural High School
 Marilog High School of Agriculture
 Sigaboy Agricultural Vocational High School
 Tacul Agricultural Vocational High School
 Taguibo Agricultural Vocational High School

REGION XII

Apolinario S. Bernardo Memorial National High School
 Maguling National High School
 Malalag National High School
 Baluan National High School

REGION XIII

Agusan Pequeño National High School
 Bacuag National Agro Industrial School
 Barobo National High School
 Carmen National Agricultural High School

Cateel National Agricultural High School
Cateel, Davao Oriental



Chapter 2

Young people and agriculture: What's the real score?¹

There seems a global consensus saying that young people are leaving the rural areas for more lucrative opportunities in the cities (Paris et al., 2010). It seems that young people, if given a choice, will certainly leave the farm behind.

In this chapter, we will try to unpack this argument by presenting global data on youth outmigration and scrutinizing some data from the Infomediary Campaign. The global data will give a picture as to how the world sees the issue on youth and agriculture. The Infomediary Campaign data, on the other hand, will provide some field evidence as to how the issue is seen in some rural communities in the Philippines.

It will be argued in this chapter that there indeed is a global consensus regarding young people's disinterest to be in the rice farm. However, this chapter will explore the issue further by presenting an alternative way in looking at the youth outmigration data. Arguments questioning the dominant orthodoxy – young people leaving the farm – will be presented.

¹ Most of the information presented in this chapter is drawn from: Manalo IV, J. A., & Van De Fliert, E. (2013). Push and Pull Factors in Rural Filipino Youth's Outmigration from Agricultural Communities. *Asian Journal of Agriculture and Development*, 10(2). The paper may be referred to for further elaboration of some arguments cited in this chapter.



Mataragan National Agricultural School,
Mataragan, Malibcong, Abra

They are leaving

The youth leaving the rural areas seems a global phenomenon especially in Asia. This has been observed in China, Vietnam, India, and the Philippines (Punch & Sugden, 2012; Hettige, 2010; and Paris et al., 2010). In the Philippines, drop in youth involvement in the agricultural workforce was noted by Canlas and Pardalis (2009). Paris et al. (2010) noted that in the Philippines the older members of the family tend to migrate to key cities and pursue non-agricultural work or careers even if farming can be more profitable. Meanwhile, Gultiano and Xenos (2006) noted that females are more likely to leave rural areas than males. Migration has resulted in the “feminization” of urban and metropolitan populations and the “masculinization” of certain rural areas of origin” (Gultiano & Xenos, 2006, p.226)

There are several reasons why young people are in haste to leave rural areas. Education, outright disdain for agricultural communities, and perceived lack of support from their parents are among the major reasons.

Manalo and Van De Fliert (2012) noted that young people in the Philippines move to the city to study. This is captured in the quotes below:

“I would like to study [Education] in Cabanatuan City, but I would like to return here [Ma. Aurora] afterwards. I want to teach here.” (Glenda, 13).

The desire to get quality education is related to young people’s desire to help their family achieve better livelihood outcomes. In the Manalo

and Van De Fliert (2012) paper, several instances of young people's desire to help their parents were presented. The authors related the findings to Punch's (2002, p.132) negotiated interdependence:

...reflects how young people in the majority world are constrained by various structures and cultural expectations of family responsibilities yet have the ability to act within and between such constraints, balancing household and individual needs.

Poverty and risk in farming were also cited as reasons of the youth to leave agricultural communities.

Arida (2009) noted that Filipino rice farmers confront perennial issues such as costly inputs, low buying price for their produce, inadequate irrigation facilities, and ambulant traders. Moreover, like millions of Filipinos, most farmers in the country live on less than USD 1.35 daily (ADB, 2008).

Meanwhile, risk in rice farming has also been found to drive away young people from agriculture as documented by Manalo and Van De Fliert (2012). The research participants from Albay narrated instances when their crops were severely destroyed because of volcanic eruption and frequent occurrence of typhoon:

"People were unable to harvest anything because rice crops were covered with ashes from the volcano."

"Houses were destroyed, paddies were washed out due to a typhoon... some fishermen also died..."

"It's scary in San Miguel when there's a typhoon. There was a time when farmers were unable to harvest anything... rice lodged... few weeks ago, there was a tsunami alert here..."

Poverty and risks associated with rice farming appear to have reinforced young people's desire to leave rural areas. It is said that migration is people's coping strategy to reduce their vulnerability (Yaquib, 2010).

Cases of young people who are not by nature predisposed to living in rural areas are also real. In Punch's study (2007) in Bolivia, the research participants simply did not want to take care of farm animals. Instead, they moved to Argentina to work even though it was not always rewarding.

Lastly, there are also plenty of cases when parents simply just do not want their children to farm. In the Manalo and Van De Fliert (2012) study, young people from Aurora and Albay were hindered by their parents from being involved in any farm chores:

“I have never been involved in farming because my parents don’t require me to help. We just hire people to do that for us.” (Rosa, 16, Lowland Aurora)

“They [parents] just discuss it [farming] among themselves because I do not have enough knowledge on farming. Oftentimes, I just leave.” (Mark, 15, Lowland Aurora)

“They [parents] do not want us to help in farming. They want us to just focus on our studies.” (Mary Ann, 15, Lowland Albay)

While these insights seem to suggest that young people turning their backs on farming is a recent phenomenon, there is evidence to prove that it has been widely happening the world over and for a long time already. In the Philippines, for instance, Castillo (1979) noted that young people were leaving the rural areas for more lucrative opportunities in urban areas.

Revisiting youth outmigration data

There are many points that are not captured by the global data that merit discussion in this chapter. First, we would like to argue that there is a need to analyze again migration data to capture some very important points. When the data say that young people are leaving the rice farm, does it mean they also hate the rice farm or rice-farming in general? Moreover, if the data say that young people are leaving the rice farm, does it follow that policies should just be directed to address the dominant view? We feel that so much focus on the dominant views seems to shut the needs of the minorities. Clearly, there are people who would like to farm or would like to go back to the rural areas. The question is what are we going to do with them?

We will present several data to support our argument on the need to come up with policies that will address the needs of the minority. Specifically, we will look into the youths’ direct involvement in rice farming, their desire to be directly or indirectly involved, and their desire to pursue agriculture-related courses in college.

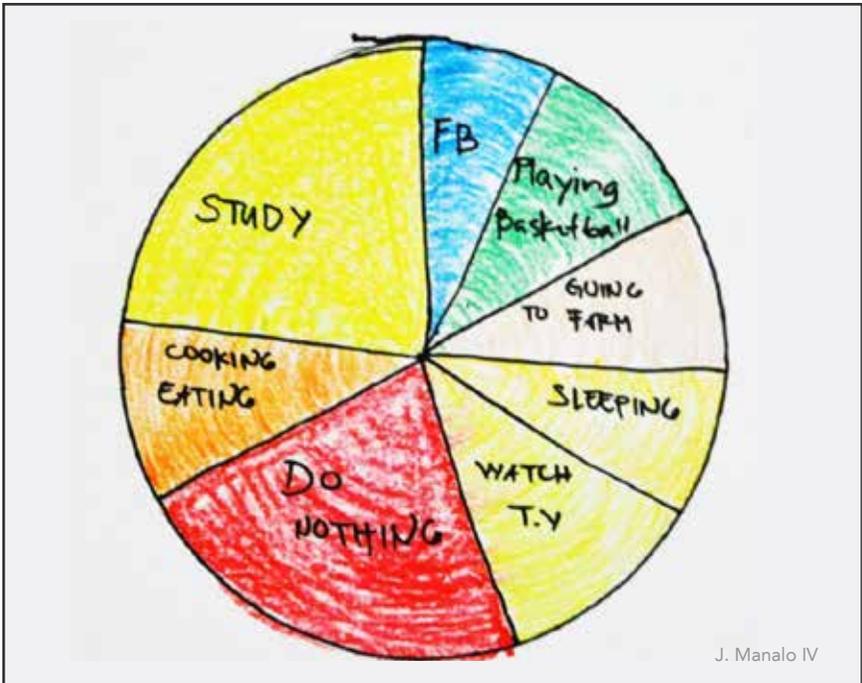


Figure 3. Time transect showing involvement of a young person in rice farming

Highlighting the exodus of the youth from agricultural communities by referencing global data masks one important fact—there are young people who have been heavily involved or are still heavily involved in strenuous tasks in the farm.

In a study by Manalo (2011) in the provinces of Albay and Aurora in the Philippines, a significant portion of young people's time was apparently spent on the rice farm. The time transect (Figure 3) captures this argument.

Table 1 shows the activities in rice farming that the youth were involved in. These activities include crop establishment, weeding, applying fertilizer, harvesting, threshing, up to selling of their produce. Data were collected from our pilot sites (n=71). The table shows that many of the young people surveyed were not new to rice farming. Some have been doing it for more than 2 years.

Table 1. Direct involvement in rice farming of young people in the pilot sites, 2013

Farm activities	ASBMNHS (n=23) %	BANHS (n=28) %	MANHS (n=20) %
Land preparation	21.74	25.00	50.00
Crop establishment	43.48	0.32	55.00
Weed management	52.17	82.14	55.00
Pest management	8.70	3.57	25.00
Nutrient management	30.43	7.14	30.00
Harvest management	52.17	67.86	25.00
Postharvest management	8.70	53.57	35.00
Selling	13.04	10.71	25.00
Bringing food to farm workers	43.48	60.71	40.00

The next point is on the desire of young people to be indirectly involved in rice farming. The graph below reflects that the youth in the three pilot sites desire to be indirectly involved (n=140). Furthermore, their desire to be involved is not affected by the livelihood sources of their respective families. Students coming from rice-farming and non-rice-farming households want to be indirectly involved in rice farming. To say that young people hate the rice farm based on the global data is a sweeping generalization. Hence, this result reframes the debate; and the move now should be towards which forms of indirect engagement on rice farming will suit them best.

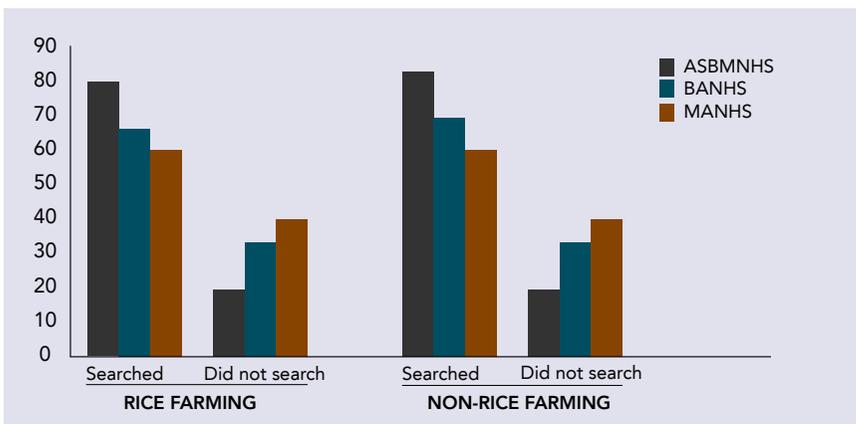


Figure 4. Percentage of students who searched for information for the farmers in their respective communities, 2013 (Manalo et al. 2015a)

Lastly, we would like to present data stating young people's desire to pursue agriculture in college. The graph below captures that desire is not totally absent (n=286). The data were collected after a year of engagement with young people in seven of our sites. One probable cause why agriculture is a less popular choice among the youth is the lack of promotion. In key cities in the country, private educational institutions heavily promote courses in nursing, seafaring, or IT-related courses.

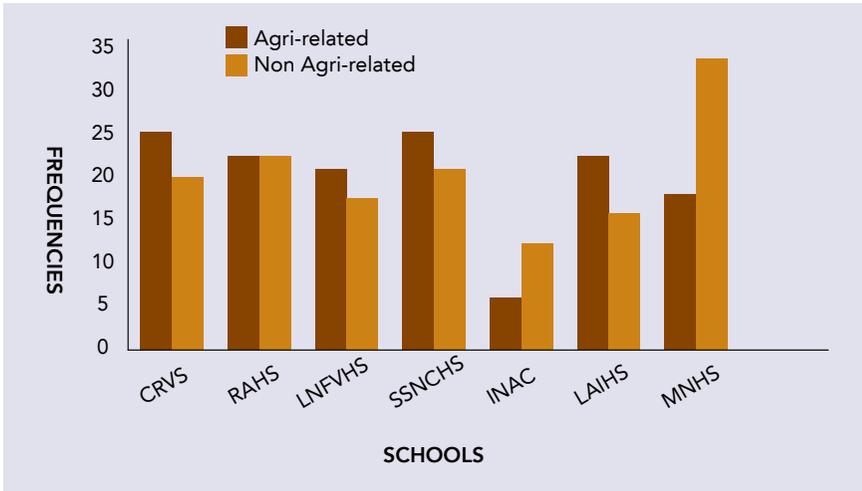


Figure 5. Courses desired in the university, 2014

Table 2 documents some of the youth engagement in agriculture initiatives in the Philippines in the past 10 years. Data were derived through online search. The table suggests that there is a scarcity of sustainable youth engagement in agriculture. Most of the initiatives available were on a project basis that disappear in 1 to 2 years or were only one shot. DepEd did have several youth engagement in agriculture initiatives such as the *School Inside A Garden* and *Gulayan sa Paaralan*. On the other hand, the longest running youth engagement in agriculture is probably the Agricultural Training Institute's *4-H Club*. All these initiatives have their pluses and minuses, but the bottomline remains that these are all fragmented and generating forceful impacts has yet to be achieved.

Table 2. Youth initiatives in agriculture in the Philippines (data consider initiatives that are operational from 2003 to 2013)(Manalo et al. 2014a)

Youth initiative	Proponent	Year started	Nature
Youth in agriculture and fisheries program	ATI	2009	Scholarship
Fulbright-Philippine Agriculture Scholarship Program	Fulbright	2013	Scholarship
Gulayan sa Paaralan	DA	Around 2010	Training/Skills competency
4-H Club	ATI	1952	Training/Skills competency
Search and Award for the Outstanding Farmers in the Philippines	Junior Chambers International	1970s (from the Philippine Jaycees)	Award
Future Farmers of the Philippines	DECS	Before 2000	Organization
Future Agricultural Homemakers of the Philippines	DECS	Before 2000	Organization
Student Technologists and Entrepreneurs of the Philippines	DepEd	2001	Organization
Young Farmers Program	House of representative	2010	House Bill/ Scholarship
Agri Pinoy Youth	NYC	2012	Resolution/ Scholarship

In sum, it can be said that while there seems a consensus that young people are leaving agricultural communities, attention should also be directed to people who are comfortable working in the rice farm. The sight of global data documenting youth exodus in rice farming masks the experiences of these young people. Furthermore, this chapter has established that young people want to be indirectly engaged in rice farming, and that the desire to pursue agriculture-related courses is not completely absent. Hence, this chapter reframes the debate on youth and agriculture. We maintain that sweeping statements relating to the disdain of young people towards agriculture should be abandoned. The debate should now focus on which forms of indirect engagement best suit young people.

Malagal National High School,
Maitum, Sarangani



Chapter 3

Let's engage the youth in agriculture: The Infomediary Campaign

The previous chapter discussed several issues relating to youth engagement in agriculture. This chapter will tackle the beginnings of the Infomediary Campaign. This chapter is particularly useful for practitioners who are interested in the same area. The lessons during the piloting stage are valuable especially on how to solicit support from key stakeholders.

Start of the Infomediary Campaign

Manalo et al. (2010) conducted a study on the *E-readiness of five top rice-producing provinces in the Philippines*. While the survey extensively covered the role of information and communications technology (ICT) in agriculture, it was also in that survey, where the idea to mobilize young people to serve as information providers in rice-farming communities started. The farmer-respondents noted that they wanted their children to help them in using the computer and in searching information from the Internet to improve their knowledge and practices in rice farming.

The idea was further nurtured in the study of Manalo (2011) titled *Bridging the digital divide in rural Philippines: exploring engagement of children*.

The study highlighted the concept of infomediary (information and mediation). He pointed out key strategies in mobilizing young people to become “infomediaries.” He looked at the mobility and time management of young people and their overall involvement in the farm. Additionally, dreams and aspirations of young people were factored in. Drawing on from the data collected, a theoretical framework on how to engage young people in agriculture was formulated, which was then used in piloting the Infomediary Campaign. Manalo is the project lead of the Infomediary Campaign. His research was part of the requirements for completing his master’s degree at the University of Queensland.

The piloting in Aurora and Sultan Kudarat

Upon finishing his master’s degree, Manalo returned to PhilRice. Along with colleagues from the Development Communication Division of PhilRice (Katherine P. Balmeo, Fredierick M. Saludez, and Oliver Domingo), Manalo started the piloting of the Campaign. PhilRice, through the Staff Development Program and the Institute’s Competitive Grant Scheme, provided PhP 300,000 (USD 6,382.00) for the pilot study in Aurora.

Although the members of the team were randomly chosen, its composition proved to be ideal later on. Balmeo is an Information Technology professional and has since been handling the PinoyRice, a portal that contains rich information on rice. Saludez and Domingo are PhilRice Text Center (PTC) agents. Their task is to reply to the questions posted in the PTC, which is an SMS platform that caters to all queries on rice farming. The PinoyRice and PTC were developed under the auspices of the Open Academy for Philippine Agriculture project (OpAPA, 2009), and are now being maintained by the Development Communication Division of PhilRice.

The piloting was conducted in the same schools where Manalo gathered data for his graduate research at the University of Queensland. These schools were Bayanihan National High School (BANHS) and Maria Aurora National High School (MANHS).



Students from Bayanihan National High School during the parade to launch the Infomediary Campaign in their village.

BANHS is an upland high school. There are three ways to get there from the national highway in Aurora (Manalo et al. 2014a): (1) through a flimsy bridge that may collapse anytime; (2) a one-way paved road that is prone to landslide; and (3) a river that has dried up and stony. Going to the town center costs a little more than USD 1.00. It is actually a big sum of money in the Philippines considering that a significant number of the population live on less than USD 1.75 a day (ADB, 2008).

People in the area hang their mobile phones in places where they could get some signal (Manalo, 2013). Slash-and-burn farming was widely practiced in the area. Forestlands were being cleared for upland rice planting. Farmers only planted once annually in the uplands using traditional varieties. *Igorot* and *Ilongot* ethnic minorities were based in the community. The chieftain noted that if only the farmers were given high-yielding rice varieties, they may have reconsidered slash-and-burn farming.

It is known that slash-and-burn farming contributes significantly to forest degradation. Agriculture, such as planting upland rice and growing coconuts, is the dominant livelihood source in the area.



Locals in Bayanihan National High School hang their mobile phones to get a decent mobile signal (Manalo, 2013).

MANHS, on the other hand, sits on a lowland rice community. People have good access to information on rice (Manalo et al., 2014a). The school is just a kilometer away from the office of the municipal agriculturist. Locals have many livelihood sources. Many of them earn from non-agricultural activities such as tricycle (vehicle for public conveyance in the Philippines) driving and selling goods in the town proper. MANHS also has a computer laboratory with internet connection.

Another funding came to support the pilot of the Infomediary Campaign from the DA-Regional Field Office in Central Mindanao. A PhP 250,000 (USD 5,319) fund was given for this initiative. The initial campaign was held at Apolinario S. Bernardo Memorial National High School (ASBMNHS) in Tacurong City in Sultan Kudarat. ASBMNHS was recommended by the City Agriculturist Office as it sits on a barangay that intensively cultivates rice.

ASBMNHS is located 7km away from the national highway in Tacurong City (Manalo et al., 2015a). The school belongs to a barangay that relies predominantly on agriculture. People grow palm, corn, sugarcane, and rice. The area is ideal for rice farming. It has a good irrigation source, extension workers from the City Agriculturist Office visit the resident



Apolinario S. Bernardo Memorial National High School
Tacurong City, Sultan Kudarat

Rodel R. Orejidos

farmers, and the climate is favorable for planting rice. During the pilot phase of the Campaign, support from the City Government was also felt as evidenced by the frequent visits made by a staff from the City Agriculturist Office, which enabled them to promptly respond to the concerns of the participating school. The City Agriculturist himself, even staff members from the regional office of DA in Region 12, visited the site several times. Tacurong City is a recipient of the *Galing Pook Award*, a recognition given for outstanding local governance in the Philippines. Although the barangay is in the city outskirts, the school has good mobile phone signal.

During the pilot phase, the following activities were done: engagement of key school officials, parade, establishment of rice gardens, teaching of information hubs in agriculture such as the PinoyRice website and the PhilRice Text Center in classrooms, provision of learning resources on rice, Infomediary Quiz Bee, engagement of computer shop owners in the community, TeknoKlinik, field days, and content analysis of the SMSs sent by the students to the PhilRice Text Center. Most of these piloting activities, except for the engagement of computer shop owners, formed the key components of the Campaign at the national level.

The following photos were taken during the national training program on rice production among TecVoc teachers. It was composed of lectures and a series of practical exercises.





J.Berto

Hands-on exercise on machine operations (Disc plow)



J.Berto

Hands-on exercise on using the drum seeder, a farm equipment for crop establishment



Our first national training program²

After our piloting, I immediately wrote the TecVoc Unit of DepEd. I did not exactly know who to contact; I just searched from the internet. Two weeks later, I received a call from Dr. Milagros Valles, the then TecVoc director. She asked me if I could come to Manila for a meeting. Dr. Valles saw the relevance of what we are doing in bringing cost-reducing and yield-enhancing technologies on rice in the countryside. Everything happened so fast. The next thing we knew was we were already planning for the first national training program on rice production under the Infomediary Campaign. When the Infomediary Campaign was first implemented on a national scale, it was more like a guessing game for the team. At some point, we were extremely glad that it was going national. At the same time, we felt apprehensive about our capacity to implement it.

Late 2012, I was the only one working full-time in the Campaign. Katherine, Oliver, and Fredierick were all partly engaged with the Campaign owing to their larger engagement in the Development Communication Division of PhilRice.

The national implementation was carried out with support from the Technical-Vocational Unit of the Bureau of Secondary Schools of the Department of Education (DepEd). This initiative is well under the Memorandum of Understanding between DepEd and DA.

The men and women of the TecVoc Unit were accommodating, smart, and very professional. They quickly responded to our calls and provided us the necessary documents.

Things hit us like wave. Before we knew it, we were already preparing for the national training programs with DepEd.

Teachers coming to PhilRice

We could not believe it. There was no turning back. During that time, the project just had almost PhP 100,000.00 (USD 2,127) left after the pilot phase. The first training program was held December 2012. I do have some experience running training programs although not on this scale.

²I - Account by Jaime A. Manalo IV

It was a Sunday when the teachers started coming to PhilRice. They came in one by one. We had to go to the reception and check the participants from time to time. There was a surge of excitement when we saw participants from Mindanao, Visayas, and northern part of Luzon.

The teachers were very nice and unassuming. At some point we felt guilty housing them in ordinary rooms. As much as we want to give them better accommodations, we were running low in resources. Some of the participants came from extremely far places. Some of them took Ro-Ro (short for roll-on, roll-off—an inter-island route in the Philippines) to get to Nueva Ecija. They practically travelled for more than 2 days just to get to the training site.

At the Staff Dormitory where I was living, I left my phone on all night. I could not sleep as I knew I had to assist the teachers who may find it difficult to find their way to PhilRice. I remember I was responding to calls and text messages at midnight. The PhilRice Campus is not well-lit at night so I was concerned for the teachers who had difficulty going to the Training Dormitory. Thanks to our security guards who walked them to the dormitory, and to the cafeteria staff members who prepared dinner for them. At any rate, I was anxious to know the outcome of our efforts.



J.Berto

Lecture on PinoyRice and introduction of Facebook group during the first training of TechVoc teachers under the Infomediary Campaign.

The next day, we had 20 teachers at the Training Dormitory. We were expecting 30 participants so I was a bit sad. We called TecVoc in Manila asking if this was normal. They advised us to just proceed. So we did. Before 12nn that day, a few more participants came. Before Day 1 ended, our venue was full.

Supplies

We did not have the needed training supplies then. What we did was to survey what we had in the office, and the rest we gathered by charm. We could not believe how far charm could take us.

It was challenging to hold training programs when the supplies you need are not available. We knew, however, that we had to do the training. The “strike while the iron is hot” principle was optimized in this case. As a consequence of not having enough budget, teachers had to stay in ordinary rooms in our then Training Dormitory (now PhilRice Hostel). If you are new in Nueva Ecija you will probably find it a little hotter than other places. But that was the best accommodation we could offer that time. I even lobbied hard to the training dormitory manager for cheaper rates as we did not have much money to spend then (and she did help me manage our little resources).

Aside from accommodation issues, we remember borrowing umbrellas from the Business Development Division of PhilRice so the teachers can be spared from the scorching heat of the sun during the campus tour. We borrowed gasoline from the Physical Plant Division when we suddenly realized that the water pump had no gasoline. It was one lapse after another. There were emotional ups and downs. We were laughing at our mistakes brought about by our inexperience in conducting training programs and with administrative procedures, particularly the procurement process, which can be messy.

The very first national training program under the Infome diary Campaign was indeed a test of resilience. We tapped PhilRice experts to be our resource speakers. They agreed to do the lectures simply because they believed in our advocacy. We did not give them anything aside from 2kg of brown rice. We appreciate that some of them made time for us. Some even had to cancel trips just so they could participate.



Lecture on Morphology of the Rice Plant during the first national training of TechVoc teachers under the Infomediary Campaign.

Training started

Generally, the teachers were impressed by the facilities at the Central Experiment Station of PhilRice in Nueva Ecija. The Campus has some of the best facilities in rice research in the country—state-of-the-art laboratories, huge screenhouses, well-maintained lawn, sports facilities, and the over 100-ha seed production and experiment area.

While we were all surprised at the turn of events, the teachers were equally surprised to see that the training team members were more like their sons and daughters or their grandchildren. They were wide-eyed to see that we will run the show. At some point, we did feel like there would be some credibility issues on our part. We just went on with the schedule and we tried to be consistent as much as possible.

It was quite difficult for me to be calling the shots. Although some participants were not in the training room yet, we started the lectures on time. I was strict with time. It was hard to implement that on the first day, but it was pretty easy on the succeeding days. We thought they did not like it. On the contrary, the teachers liked it as reflected in the evaluation results. The teachers commended our training management and our resourcefulness.



The teachers also enjoyed the tour around the Science City of Muñoz. We visited the Philippine Carabao Center, Philippine Center for Postharvest Development and Mechanization, Central Luzon State University, and the Bureau of Fisheries and Aquatic Resources. A trip to these agencies, in addition to PhilRice, enhanced the learning experience of the teachers.

While I consider myself a people-person type, I had a hard time spearheading the training. I realized it does require a different skill to deal with people from different cultures, regional backgrounds, and, to some extent, quite different values. I know the theories quite well in community development, like suspending your judgment when working with people you do not know; but to apply them is a different matter.

There were many times the team felt cracking up, but I guess the fun portions of the training helped us overcome the mishaps. We were humbled by the teachers who attended as trainees. Some of them have long years of experience as teachers. To be facilitating a training for them gave us good pressure. Seeing their dedication to learn and be a part of our advocacy, we knew right there that the Campaign had a bright future.

Discussions were lively after each lecture. The teachers asked relevant and practical questions. They listened intently to the lecturers and actively participated in all technology demonstrations. Comparing pretest and posttest scores of the participants, we observed high knowledge gains (10-70%) among them. We also witnessed how they read and valued the publications we gave them during the training.

ICT challenges during the training

Admittedly, we were all amateurs in conducting training programs, but there were several external challenges as well. We did not have internet connectivity during the training. Its timing was unfortunate because we were set to introduce to the participants the PinoyRice and ask them to join our Facebook group. These two important training components require internet connectivity. To introduce PinoyRice to the participants, a quick fix was to use the offline version for the lecture and practicum.



J. Barrio

Hands-on exercise on the use of PinoyRice (www.pinoyrice.com), a website that contains massive information on rice and rice-based farming systems

The training on Facebook was more challenging. We required all of them to be a member of the Facebook group so they could use that as a platform to upload photos, share stories on best-fit practices that participating schools can learn from.

It is easy to assume that everybody has a Facebook account these days, but this is not the case. Some of participating teachers did not have Facebook accounts. The situation may be different now for the participants, but in 2012 that was the reality. We started with making an account for each of them. Some did not have email accounts so we also had to create one for them. We were able to finish this part, but it was stressful.

Our experience in training the teachers on the use of ICTs pushed us to also engage the Internet Computing Fundamental (ICF) teachers aside from those handling crops production. Adding more teachers as participants put more pressure on our resources and our ability to implement. Overall, we realized that the marriage between ICTs and agriculture was central to the success of this initiative.

Part 2

How we are doing it

This part of the book expounds on several important dimensions of the Campaign. It is composed of five chapters dealing extensively on the How-Tos of the Campaign. Areas highlighted are: (1) stakeholders and Campaign components; (2) workplan; (3) tips in doing field work specifically on how to behave in rural communities; (4) data collection methods, which focus on qualitative methods that can be used in collecting information from young people; and (5) how successful implementers are implementing the Campaign.

CHAPTER 4

answers the question: How can high school students be engaged in agriculture? This tackles the stakeholders of the Infomediary Campaign as well as their roles. The different components and key activities of the Campaign are also discussed. It is recommended for agricultural extension workers, students, and members of the academe. Development communication practitioners may also benefit from this.

CHAPTER 5

tackles how the team divides the activities in one fiscal year. This is an important planning input, particularly to gauge the amount of work that needs to be done in specific months of the year.

**CHAPTER
6**

focuses on doing field work. We feel that it is necessary to devote a chapter for this as the Campaign is heavy on field work. This chapter is more for the neophytes in field work.

**CHAPTER
7**

discusses the different data collection methods, aside from surveys, employed by the team to collect data. It should be noted that the Infomediary Campaign is an action research initiative. Quite a number of qualitative methods are discussed in this chapter. These methods have been found useful by the team in collecting information from young people. This is recommended for people interested to do qualitative research among young people.

**CHAPTER
8**

features some of the outstanding partners of the Infomediary Campaign. The purpose is to show some examples how participating teachers can innovate in implementing this initiative. This is recommended for teachers who might be interested to replicate the Campaign in their school.

Bagumbayan Agro-Industrial High School
Lupon, Davao Oriental



Chapter 4

Engaging high school students in agriculture: People, tools, and best-fit practices

Many are probably curious as to how we engaged high school students in agriculture. This chapter will provide the answers. It is divided into three parts: stakeholders and their roles, components that work, and best-fit practices.

Stakeholders

In any development initiative, it is important to identify the major stakeholders. In the case of the Infomediary Campaign, it has eight main stakeholders: high school students, their parents, farmers in the community, community leaders, teachers (those who were trained under the Campaign) and their colleagues, key school officials, and officials of the Department of Education.

Understandably, the high school students are on top of the heap of our stakeholders. The Campaign was aimed at mobilizing them to serve as information providers in their respective rice-farming communities. The novelty of this objective rests heavily on how the high school students perform their roles as infomediaries.

The teachers are equally important as they are the force multipliers of this initiative. Once trained, the teachers are the ones responsible for training the infomediaries. They form a significant part of the infomediation chain.

The co-teachers of the trained teachers and key school officials are also important stakeholders. They set the environment where this initiative will thrive. In the literature it is known that supportive organizations are keys to the success of any development initiative (Bessette, 2004).

Lastly, the role of the infomediaries is validated by the people they needed to assist—the farming parents and other farmers in the community. They are the intended users of information that will be passed on by the students.

The Department of Education and the Department of Agriculture-PhilRice are two important organizations behind this initiative. Without the support of these organizations, the Campaign would not have taken off.

We kept in mind all these stakeholders when we crafted interventions for the Campaign and devised ways on how to optimize their involvement.



J. Berto

Infomediary team members interviewing farmers near Apolinario S. Bernardo Memorial National High School, Tacurong City, Sultan Kudarat.

Components

The Campaign has three main components: Read, Surf, and Text (Manalo et al., 2014a; 2015a). In the Read component, participating schools are provided with reading materials on rice. This component is extremely relevant in remote areas where ICT infrastructure is lacking. Hence, printed materials may be the best way to disseminate information on rice. The Surf Component, meanwhile, introduces the students to PinoyRice, an information portal on rice farming in the Philippines (OpAPA, 2009). It has an offline version that can be used in areas with unreliable internet connection. The teacher may install the portal in the school computers using a compact disc. The Open Academy for Philippine Agriculture (OpAPA) developed the portal. Lastly, the Text Component introduces the students to the PhilRice Text Center, which was also developed by OpAPA. The PTC is an SMS platform where anyone can send in questions on rice farming and receive responses from technical experts (OpAPA, 2009).



Figure 6. The major components of the Infomediary Campaign



Cateel National Agricultural High School, Cateel, Davao Oriental

K. Balmeo



Libon Agro-Industrial High School, Libon, Albay

K. Balmeo



San Jose National Agricultural and Industrial High School,
San Jose, Occidental Mindoro

J. Berto

Table 3. Sample training schedule of the Infomediary Campaign.

Time	Day 1	Day 2	Day 3	Day 4	Day 5
7:30	BREAKFAST	BREAKFAST	Field Work (Seedbed preparation Modified Dapog Technique)	Science City Tour (PCC, PhilMech)	Administrative issues
8:00	Registration	Review			
8:30	Opening Program <ul style="list-style-type: none"> • Opening Prayer & National Anthem • IMS Policies and Training House Rules • Welcome Remarks • Course Overview • Introduction of Participants and facilitators • Pre-test • Group photo 	PinoyRice Lecture and Tryouts	Integrated Pest Management		
9:45	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK		
10:00	The Infomediary Campaign	Overview of the PalayCheck System	Rice Biotechnology		Graduation
12:00	LUNCH				
1:30	The Philippine Rice Industry	Crop Establishment (40-kg seeding rate and modified Dapog)	Nutrient Management: Minus-One Element Technique (MOET) and Leaf Color Chart (LCC)	PhilRice's Tour (PBBD Lab, RCFS Lab, REMD Center, Rice Museum)	
2:30	Morphology of the rice plant				
3:30	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	Training Evaluation, Post-test	
4:00	Major Rice Diseases of the Rice Plant	PhilRice Text Center	Hands-on: MOET Set-up		
6:30	SOCIALS	DINNER			

Aside from the key components, the Campaign has several banner activities. One of them is the **Capacity enhancement for teachers**. In this activity, the campaign team educates the participants on rice farming. They are exposed to different cost-reducing and yield-enhancing technologies on rice. Table 3 is a sample training schedule. It combines practical and theoretical approaches to ensure the learning of the teachers who will eventually share what they know with their students.

During the training programs, the teachers were given teaching modules. In 2015, the participating teachers received three teaching modules on climate-smart agriculture: *Climate Change 101*, *Climate Change Adaptation Strategies*, and *Climate Change Mitigation Strategies*.

Climate Change 101 tackles the basics and the science of climate change and its impacts on rice. The adaptation module discusses the different ways by which farmers can adapt to climate change. The measures range from using varieties adaptable to the impacts of climate change to water management options. Some how-tos are tackled in this module. The mitigation module discusses several rice farming practices to reduce



J.Berto

Infomediary Quiz Bee in Corazon C. Aquino National High School, Gerona, Tarlac

impacts of climate change. These modules were given to the teachers as electronic presentations. The presentations are in Filipino to avoid language issues that might result in misunderstanding of key concepts. Additionally, the modules go with a teaching guide where the teachers have some sort of script in explaining technical matters on rice farming. Methods of assessment are also given in the modules.

To help the participants set up a rice garden when they go back to their respective schools, they were also given 1kg each of three rice varieties suited for their rice-growing environment. The purpose was for the teachers to try out immediately what they learned from the training, promote the use of high-quality seeds, and create a small agricultural extension event in the community.

Setting up of rice garden. In this component, participating schools had set up a place in their respective campuses where the students grew rice. They planted several rice varieties that were given to the teachers who attended the training. The activity was meant to be an application of what they learned about rice farming. Having the students to actually



Students of Malalag National High School in Maitum, Sarangani during their crop establishment exercise in their rice garden.

plant rice by themselves made them credible sources of information. It is known that development initiatives involving young people are far more successful if they are given the chance to participate as opposed to being passive receivers of information. It is recommended that planting activities must be done early in the morning or late in the afternoon. When the team experimented on planting at 10am when the sun was high up, the students just threw away the rice seeds given to them. For schools that had no areas for rice gardens, the teachers and students either borrowed land from their respective local government units or planted in empty plastic containers (container gardening).

Engagement of parents. It is important that parents of the students and other farmers in the community must be engaged in the Campaign. In Manalo's (2011) thesis, it was found that parents or farmers were likely to doubt the credibility of their children and the students as knowledge providers on rice farming. Likewise, literature claims that parents



Technoklinik in San Jose National Agricultural and Industrial High School, San Jose, Occidental Mindoro.

usually do not want their children to farm (Punch & Sugden, 2012). In the Campaign, the parents were engaged by holding *TeknoKliniks*, an activity where an expert from PhilRice visits the community and answers questions from the farmers. This was also an opportunity for the team to inform the farmers in the community about the Campaign and what it can offer them.

Engagement of key school officials. It was important to engage key school officials since the Campaign team had to seek their permission and support to conduct the activities. The Campaign team spoke with the teachers, their immediate supervisors, teachers handling computer classes, and school principals. The team discussed the Campaign and its activities, ways of supporting it, possible issues that may arise, and possible work and time adjustments should the Campaign be integrated into the curriculum.



J. Berito

Field Day in Claveria Rural Vocational School, Claveria, Cagayan



Infomediary Campaign Facebook Group

Figure 7. Infomediary Campaign Facebook Group

Facebook Group. A closed group Facebook account was set up where students and teachers shared how they implemented the campaign-related activities in their respective schools. This also provided an avenue for the participants to share best-fit practices that could be emulated in other schools. Announcements and other housekeeping-related issues were also posted in the group.

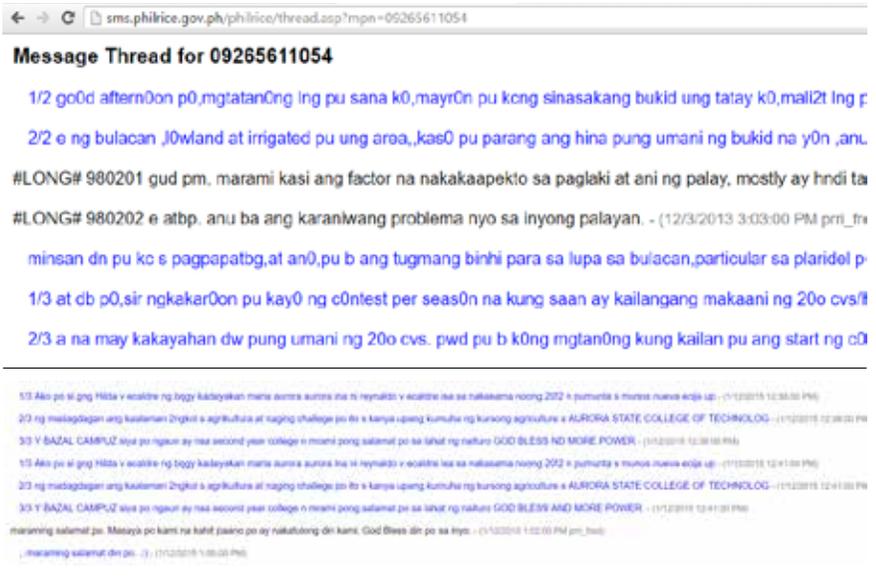


Figure 8. Screen grab of the text messages received in the PhilRice Text Center

Monitoring of SMSs sent by the students. Participating students were all asked to register to the PhilRice Text Center. The team monitored and analyzed, when necessary, their text messages (Manalo, 2013). Likewise, the team also sent messages occasionally to the students (crowdsourcing). A trend in mobile phone usage, crowdsourcing is “the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined and generally large network of people in the form of an open call” (Howe (2006) as cited by Whitla (2009)). In crowdsourcing, the text center agents do not just passively wait for people to text. Instead, they go out of their way to search for issues that may be addressed by the team.

Integration in the curriculum. More than 60% of the participating teachers were able to integrate the lessons from the training into their curriculum. One of the major drivers for this is the memorandum released by the DepEd asking them to re-echo what they learned from the training to their respective classes. Moreover, the teachers taught crops production as part of their regular load. For the first national training of the Campaign, the team overlooked the need to recruit teacher participants who handled crops production classes. More than half of them did not teach crops production; hence, they were unable to re-echo what they learned from the training.



J. Berto

An infomediary in Asuncion National High School in Davao del Norte explaining the result of their agroecosystem analysis.

Field Days. These served as avenues for students to showcase what they had accomplished in their rice gardens. Field days were held when the rice crop was ready for harvest. For this event, the participating school invited the farmers. The students, with guidance from their teachers, were the ones who explained to the farmers how they grew rice. In some participating schools, field days became an avenue to reach out to the local government units and the local Department of Agriculture (DA) office. Field days were opportunities for knowledge sharing and learning.



J. Berto

Claveria Rural Vocational School, Claveria, Cagayan

Tech-Voc teachers' training on climate-smart agriculture and rice production at the PhilRice Central Experiment Station in Nueva Ecija.



Chapter 5

Sample one-year Infomediary Campaign workplan

To enhance the replicability of this Campaign, we would like to present our workplan for one academic year.

This workplan is drawn from the lessons learned by the team from conducting the campaign at the national level. The activity column lists the key activities in one academic year. The months correspond to the months in one academic year. Number (1) month refers to January and so on.

The Campaign operates following the academic year of the Department of Education (DepEd), not the fiscal year of the host organization (PhilRice). The activities must be well aligned with how the schools operate to avoid disruption of classes, which DepEd strictly prohibits, and the fact that the key players are based in schools.

The preparatory activities are critical for the Campaign. It is a coordination-intensive phase. Phone calls and face-to-face engagements happen during this stage. The bulk of the work gravitates around communicating with DepEd for the release of the memorandum for the national training. The communication materials are also prepared in this phase.



Our administrative assistants ensure smooth Campaign operations by efficiently dealing with all administrative requirements.

In preparing these materials, experts have to be tapped. The experts will be the ones to review the materials before these are printed. It is important to consider the amount of time that will be spent on the review of the materials, layout, and the procurement process. All these may take a long time.

The government has a detailed procurement process, which can significantly impact on the operations. The procurement requirements must be strictly complied with and factored in the planning phase to avoid non-delivery of priority interventions. In securing the items to buy, it is good to assign a point person who is good in dealing with administrative procedures and can work fast while complying with the requirements. Having a list of suppliers for certain goods is also very helpful. Discuss your needs with the administrative officer, and communicate effectively the timeline for your deliverables.

Once the training memorandum is out, it would be good to strategize on how to disseminate it. It should be noted that most of the participating schools do not have access to the internet nor are accessible for couriers. What we usually do is we call the teachers we previously trained to inform them that a memorandum is already released so they can facilitate from their end. For teachers who have participated in previous training programs, it is quite easy. We just upload the memorandum in our Facebook Group so the teachers can just download it. Most of our participating teachers



PhilRice Hostel



Cafeteria



Room

have access to the internet when they go home on weekends in their town centers. Complying with administrative procedures requires diligence and organization—these traits must well be considered in choosing the staff who will work on the task.

Training preparation will require several meetings and following through. Having a checklist of the things that must be done should not be overlooked. There are plenty of things that need to be done, but among the most crucial are food and accommodation.

We usually send a training information packet to participants prior to going to Nueva Ecija. The province is a bit hotter than other provinces so we make it appoint that this is conveyed to them. All things that they should expect and the things that they should bring are listed in the letter. This somehow prepares them for the kind of training that they will get themselves into.

For food, it is best to ask if the participants have any restrictions so that the food provider will be informed. Even if resources are not an issue, it would be good to discuss in detail with the food provider the details of the training and the participants. For instance, we have always received feedback from teachers that they want more vegetables in the menu as some of them have dietary restrictions. Another crucial matter when dealing with food is time of delivery. It is important that the food is served promptly as the training runs on a tight schedule. We also gave the food providers details about the campus since it is quite big. We also informed them of various on-site activities where the food must be delivered. Close coordination with the food provider is very important to meet the demands of the participants. There are instances when requests for food service are set at odd hours—for an early morning activity at 6am or overtime work that may last up to 9pm.

Another important part of training preparation is coordinating with experts. This is not always easy to do as the experts are mobile and not quite easy to track. If there is an alternative pool of experts, this will not be an issue. If the person, however, seems to be the sole expert in the topic, this becomes burdensome. Fixing the training schedule way ahead often resolves this issue as the experts will be booked early. Availability of experts from other institutions and bureaucratic hurdles must be noted. For instance, one of the organizations we invited charged some fees for use of its facilities. Since we did not know about this policy, the expense was not included in the cash advance for the training. The key is to always ask about practices, regulations, and policies of other organizations that may impact on your training activities and budget.

The training of teachers usually happen in April to May. We usually accommodate up to 35 participants in one batch. In 3 years, we have had about 100 participating schools. Proper endorsement is necessary. For instance, as the teachers come from far places, they usually arrive late at night. It is a must that the guards are alerted about this. As the training programs usually start on Monday, participants start to arrive on Sunday afternoon. It is a must that food is available for the participants as it would be difficult for them to look for a place to eat during late hours (in PhilRice, it can be very difficult as the Institute is far from the city proper). A brief orientation on how to navigate the training site also helps. For instance, inform your participants where they can buy medicines, visit the nearest church, or what phone numbers they can call should there be an emergency.

It is advised that an encoder joins the scoping studies so that the data gathered can be analyzed immediately. Encoding runs from June to mid-August.

From July to October, the team uses the time for call rounds. At the moment, the Campaign has over 100 participating schools. It will be very costly to visit all of them for monitoring. There should be a mechanism to track the progress happening in the various sites.

In our case, two staff members are assigned to do the call rounds in all participating schools. They check how the Campaign is being implemented and encourage the participating teachers to post their learnings and updates in the Infomediary Facebook Group (if applicable). Our staff members also spot interesting practices that are worthy of documentation. The findings are encoded in a matrix.

Doing the call rounds gives an assurance to the team members that implementation is running smoothly on the ground. This task requires diligence, organization, and plenty of charm. This mechanism maintains the connection with the participating schools when the teachers return from the training.



Infomediary team members doing the call rounds as part of the monitoring activities of the Campaign.

Side by side with the call rounds is the Facebook Group monitoring. There is a dedicated closed group for the participating schools. The purpose of this group is for the teachers to learn from one another about the best-fit practices in implementing the Infomediary Campaign. Our staff members monitor the activities being implemented by the participating teachers. It is also a cost-effective way of monitoring the Campaign sites. This task goes on year-round.

Random field visits usually happen from July to November. Since we cannot visit all participating schools, we usually come up with a set of criteria for the schools we will visit. For instance, we prioritize the schools identified for the scoping studies. We also look at the call rounds and the Facebook Group reports for some interesting cases. We also scrutinize the text messages sent by the Infomediaries to the PTC. From these criteria and data sources, we map the trips for our random visits. We usually plan in the most strategic way so we are able to visit as many schools as we can.



C. Dacumos

Infomediary team member filming a testimonial from our partner-teacher in Leyte Agro-Industrial High School, Leyte, Leyte.

The key in any successful random visits is asking the right questions. It is not always easy to know which questions are right or not. The key is to just ask plenty of questions. Sometimes one just hits the gold mine along the way.

During random visits, we take time to gather testimonies. We do not limit this exercise to only positive comments about the Campaign. The approach we employ is a storytelling activity. We encourage free narration so we are able to pick up plenty of lessons that may help improve the Campaign. This is in keeping with the nature of the Campaign as an action research. We also take the opportunity to do the Infomediary Quiz Bee when holding random visits. Aside from being a fun event, the quiz bee is also a way to gauge the level of knowledge of the students on rice production. It is a creative way of checking if we are meeting our objectives. Another important purpose of random visits is to settle issues on the ground. This is also a coordination-intensive task. Based on experience, we have seen plenty of ground issues, most of them petty, that affect the implementation of the Campaign. When we visit the schools,



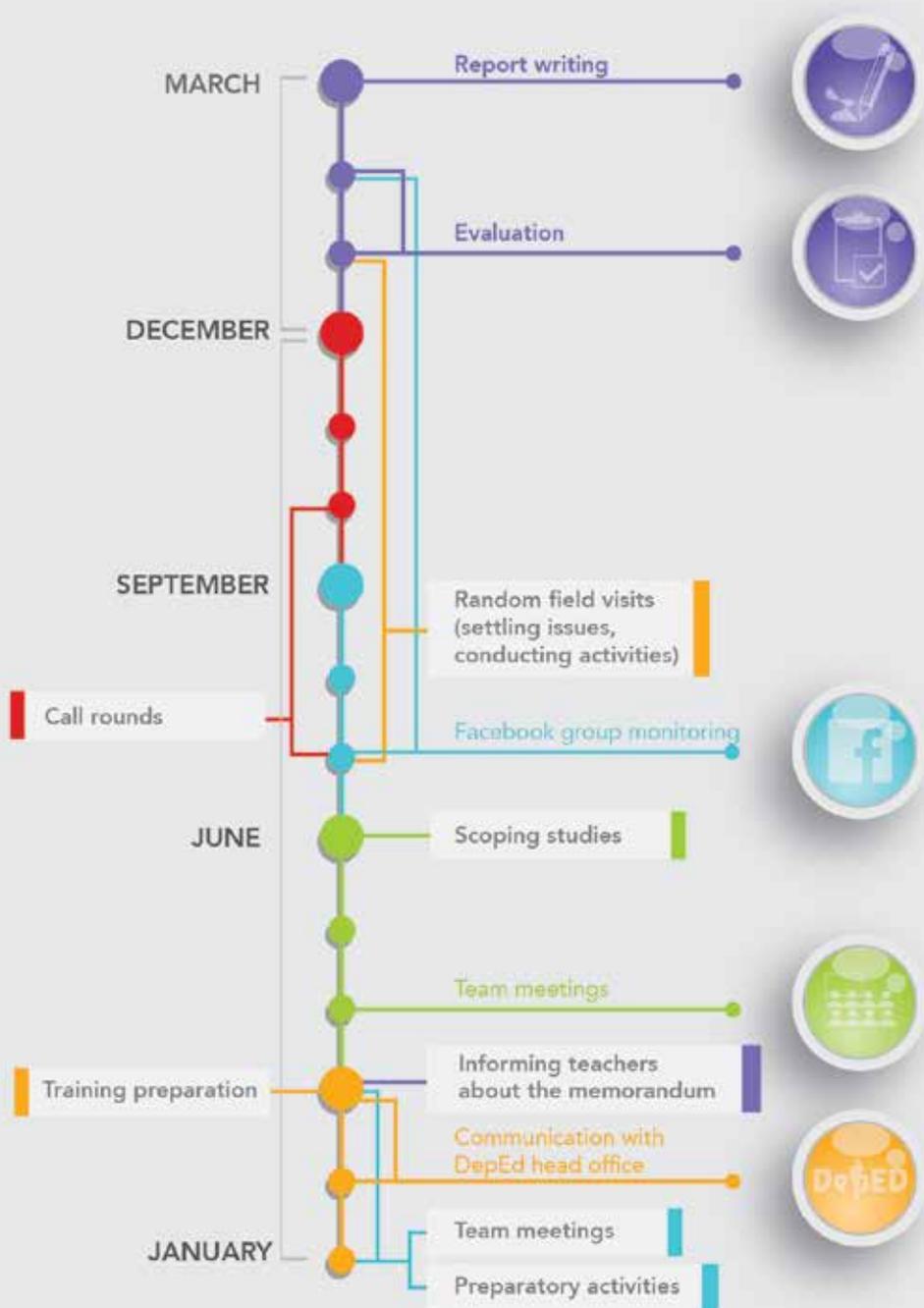
J. Berto

Focus group discussion in Gamu Rural School, Isabela.

we take the opportunity to sit down with the key officials to explain some of the pertinent issues surrounding the Campaign. Usual issues are unclear Campaign objectives, absence of re-echoing mechanisms, and poor coordination among parties involved. At some point, our presence as convenors help in settling issues on the ground.

For 3 years now, we always try to do some academic year-end assessment of our work. We usually do it in February until first week of March. Time is of the essence for this task, as this is approaching end of school year. This is the period for exams, and graduation or recognition ceremonies. Liaising requires excellent coordination skills. For the random visits, we usually employ the same methods used during scoping but with some modifications. This way, we are able to measure our performance. We try to figure out what works and what does not. These waves of process evaluations are necessary to ensure that everything is on target.

Sample training schedule of the Infomeidiary Campaign



A group of people is seen climbing a steep, muddy hillside. The terrain is rugged and appears to be a natural path or a site of erosion. The people are dressed in outdoor or work-appropriate clothing, including jackets, scarves, and hats. One person in the foreground is wearing a blue and white patterned scarf and a blue jacket, and is reaching out to touch the soil. Another person behind them is wearing a blue cap and a brown jacket, carrying a large brown bag. In the background, another person is visible, wearing a wide-brimmed hat and a blue jacket. The surrounding area is densely forested with various types of trees and vegetation. The lighting suggests it might be late afternoon or early morning, with long shadows and warm tones. The overall scene conveys a sense of a challenging and arduous journey.

A long and challenging climb going to our Campaign site in Mataragan, Malibcong, Abra

Chapter 6

Going to the site: Practical tips



J. Berto

Ilocos Norte Agricultural College, Pasuquin, Ilocos Norte



LNHS

Luna National High School, Luna, La Union

Based from our experience in conducting the Campaign, below are some tips that may be valuable to amateurs in the field of community development, development communication, or agricultural extension:



WHAT TO BRING

- ✓ Backpack. Travel light. Bring only what you need when you travel to the community. One backpack should be enough. You will never know what sort of challenge awaits you.
- ✓ Biscuits and water. These items should always be in your bag. One time we found ourselves on a very long road with no hint of a variety store nearby and that went on for the next 1-2 hours. That can be difficult if you are traveling during meal times. You can get hungry.
- ✓ Medicines. If you have some medical conditions, bring your medicine kit. Some areas do not have drug stores near the project site.
- ✓ Battery packs. Make sure you have extra batteries for your cameras and mobile phones (make sure they are fully charged). We visited sites where electricity is limited. Battery packs for gadgets are important: for your phone if you need to make a call, especially in case of emergency, or your camera to capture the scenery and interesting subjects in rural areas. In addition, make sure you have enough memory cards or enough space for your data.
- ✓ Data sheets. There are times when we forget the most important things. Do not forget the main reason why you are doing the trip, and that is to gather data!



WHAT TO DO BEFORE THE TRIP

- ✓ Go over again your checklist and know the protocol for trips. You will be on a long trip, and you will not have the comfort of your office assistants to help you out for anything. It is a must that you have all the things you need. Whether you are traveling to gather data or hold an activity, make sure that you bring all items in your checklist.

- ✓ Search for the place online. It is far easier to travel now as people can just go to Google to know more about the place and how to get there. This can also be used in estimating the time needed for travels. Most of the rural places, however, are not yet inputted in the GPS devices of mobile phones. Hence, be prepared for information errors. There were times when the information we got online was to travel by land when taking a boat was the proper mode of transportation. At any rate, also look for nearby accommodation as you do your research about the place. While it is recommended that immersion be done in the area, we do not want to cause any inconvenience on the host. As rural folks are extremely hospitable, they might prepare too much for your coming and that means added cost for them. Hence, it is advised that you go look for your own accommodation in the area.



- ✓ Identify and contact local partners. This is important as you are new in the area. The local partners most of the time send a volunteer to accompany you in the field. The local volunteer can greatly help you in gaining the trust of the community especially when you need to gather data or hold an activity. The people in the community would be at ease with someone they already know. When writing to your local partners, be specific about the kind assistance you need from them. Request for a vehicle is oftentimes very useful especially if you need to travel between islands. While the local partners are generally hospitable, do offer to cover some of the costs of your stay there. For instance, you may offer to pay for the fuel of the vehicle that they will provide. Likewise, calling up local partners can also serve as your initial courtesy call in the area. There are times when you might have to skip meeting with them owing to time constraints. Ideally, though, you need to make a courtesy call.



Tokens for farmer-parents, students, and school officials

- ✓ Get all possible contact numbers in the area. In many rural areas we visited, mobile phone signals were unreliable. If the person you need to meet has several sim cards from all mobile networks, get all of them. On the other hand, it would also be good to have sim cards of different networks and try which one has the strongest signal.
- ✓ Bring tokens for your stakeholders. Give them any items to show how you appreciate their time. The items do not have to be expensive, but preferably useful. For instance, if you will speak with farmers, you can give them hats which they will surely use.
- ✓ Bring enough cash. Automated Teller Machines (ATMs) may be unavailable. Besides, cash always works in rural communities!

- ✓ Watch your health. Take some vitamins and exercise regularly as fieldwork can be extremely tiring. Be physically fit for the possible long hours of walking and hiking.



HOW TO BEHAVE

Working in the rural areas is one of the most fulfilling experiences in development work. People are extraordinarily kind, genuine, and accommodating. To make your trip worthwhile and get the support of the community, you must behave properly all the time so you do not offend anyone. Here are some tips on how to behave properly:

- ✓ Suspend judgment. You are different, and so are they. Learn to embrace and find harmony in diversity.



- ✓ Be patient. There will be some impolite and skeptic locals. Handle them well. Do not show any indication that you are annoyed. Always think that you are the one who needs their inputs. You should be able to adjust and adapt to their pace.
- ✓ Be aware of your facial expressions. Sometimes our facial expressions can be taken negatively if we are not aware of them. Try to check yourself from time to time as rural folks are quite sensitive. Be nice. Show genuine interest to their culture and way of life.
- ✓ Learn to read nonverbal cues. This requires sensitivity to how the other party feels. Be flexible and always on the go. When on field, think that you are on field. You are away from your comfort zone so make do



J. Berto

Elias P. Dacudao Gumalang School of Home Industries,
Baguio District, Davao City

with what is available. Rural folks are hospitable people. Hence, it would be rude to refuse their generosity.

- ✓ Be very polite. There are times when it would be hard to say no but you have to in a polite way. For instance, if you have food restrictions such that you cannot eat the food they are offering you. You need to politely decline so you do not offend your host.
- ✓ Learn to refuse (sometimes). This refers to accepting gifts from the locals. There are times when rural folks are too hospitable to the extent that they will give you parting present such as vegetables from their harvest. Remember that what they give you can very well be converted to cash for their own consumption. Learn to refuse. Also, this will help manage expectations for your next visit.
- ✓ Be realistic in handling requests. There will be instances when requests will be made such as provision of seeds or farm machines. It is your duty to be honest with them. If you cannot decide, tell them that you will consult your peers first. Do not give false information.
- ✓ Bring some tokens. Again, do not come empty-handed. Try to have some simple items such as a t-shirt, mug, cap or any souvenir item for some key people you are expected to meet in the area. In our case, we bring advocacy materials that may help promote our initiative better.
- ✓ Have fun. There will be many unexpected things that can happen to you while on field. These are unedited, unexpected, and most of all, very memorable. For instance, there was a time when we just called for a key informant interview, yet in a few minutes, we were already surrounded

by about 20-30 people. It was more like a barangay assembly then. Go on with your purpose, think fast, and be flexible.

- ✓ Go on no matter what. Even if just one person turns up, go on with the activity and adjust accordingly. For instance, if you planned for a group discussion but only one person turns up, then opt for an in-depth interview. This means you need to come prepared all the time.
- ✓ Pick simple clothing. Try to look like the locals. Don't call attention to yourself by wearing distracting jewelry or dressing inappropriately. Try to blend in.



K. Balmeo

Southern Samar Comprehensive High School,
Balangiga, Eastern Samar

Infomediary trips

Going to an upland area near the Marilog High School of Agriculture in Davao City. The site can be reached by riding a *habal-habal* (single motorcycle) passing by a long stretch of unpaved and hilly road.



Our infomediaries in Libacao National Forestry Vocational High School have to ride a raft for about 5 minutes daily from their homes going to the school.





The way going to Guihulngan National Agricultural School in Negros Oriental, about 24 km from the National Highway. The school can be reached by riding a *habal-habal* (single motorcycle) passing by a long alternating stretch of paved and unpaved roads with about 3km of walking in between.



The field day in our site in Pilar Rural High School in Abra participated in by farmers in the area, teachers, and infomediaries.





The teachers and infomediaries of Leyte Agro-Industrial School in Leyte, Leyte.

Our young lady infomediaries in Bagumbayan Agro-Industrial High School in Lupon, Davao, Oriental preparing carbonized rice hull, which they sell to farmers in their community.



Our infomediaries in Mapanas Agro-Industrial School in Mapanas, Northern Samar participating in the Infomediary Quiz Bee. This photo was taken 2 months after Typhoon Lando (Koppu) wreaked havoc in Luzon and in the Visayas.





An infomediary in San Jose National Agricultural and Industrial School in San Jose, Occidental Mindoro is assisting one of the farmers in their community by offering to send an inquiry to the PhilRice Text Center.

About a 30-minute boat ride from Rawis, Northern Samar to our site in Mapanas Agro-Industrial School.



A group of four students are in a rice field. They are looking at a color calibration chart held by one of the students. The chart has several green and white squares. The students are wearing casual clothing, and the field is filled with young rice plants in rows. The background shows trees and a cloudy sky.

Students of Asuncion National High School in Davao del Norte during their agroecosystem analysis.

Dingle National High School
Dingle, Iloilo



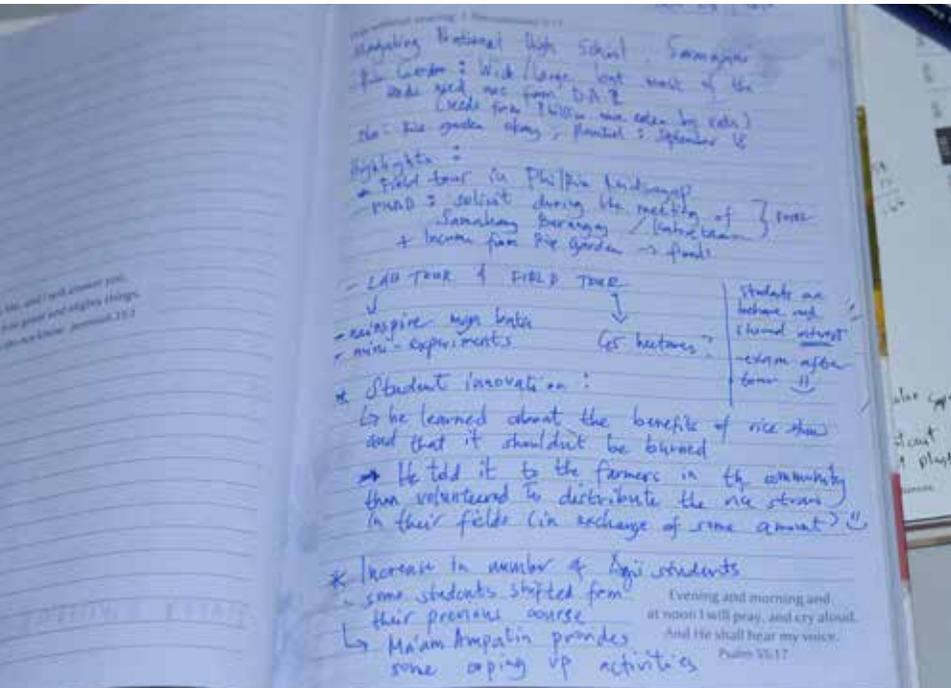
Chapter 7

Collecting data from young people

This chapter discusses the various methods the team used in collecting data during the Campaign. More emphasis is given to data gathering with high school students. Collecting data from young people requires creativity (Whiting, 2009) as conventional data collection, such as straight interviews, might not work for them.

The team used participatory methods such as participant observation, social mapping, time transect, historical timeline, focus group discussions, peer interviewing, and in-depth interviews. Some lessons in using these methods are also shared in this chapter. Although it is certain that there is extensive literature about these data gathering methods, their applications on the field can be widely different. Field workers should focus on the main goal, which is to collect data, rather than rigidly following how these methods should be applied.

Below are some of the how-tos and recommendations on the best use of these methods based on our experiences. Researchers are free to modify and experiment on these methods to suit their needs.



PARTICIPANT OBSERVATION

It is a method where “the observer participates in the daily life of people under study either openly in the role of researcher or covertly in some disguised role, observing things that happen, listening to what is said, and questioning people over some length of time.” (Becker & Geer 1957, p.28).

Materials

- Observation guide
- Pen or pencil
- Paper

How

- ▶ There should be some agreed set of things that will be observed. This is an important point when one is doing field work.
- ▶ There will always be plenty of distractions when you are openly observing. Having an observation guide gives you focus. While

following a guide may sound structured, you need to be alert for anything trivial or unusual that may be validated afterwards.

- ▶ An observation guide is a simple document. In our case, we usually have a two-column table. In the first column, we put all things of interest, and on the second, we put our remarks for each observation category.
- ▶ In filling out the observation guide, it is important that the members provide rich descriptions of what is being observed.
- ▶ In our case, the observation guide is very useful since we gather information in groups to cover many places at the same time. Interpreting results can be challenging as there will be plenty of intersubjectivity at play. Hence, it is ideal to have small group presentations to validate what each member of the group meant with what was recorded or observed.

Weaknesses

- ▶ The method will fail if you do not keenly observe. Having an observation guide is good, but if one is not skilled enough, he or she may miss some interesting details.
- ▶ The method can be subjective especially if no other methods are used to validate the descriptions. While intersubjectivity cannot be avoided in any qualitative method, too much subjectivity is counterproductive as far as the quality of the data gathered is concerned.



Mobility map

MOBILITY MAPPING

Mobility mapping is useful in exploring issues related to “mobility of men, women, and children in rural and urban areas” (Beazley & Ennew, 2006, p. 194). From our observation, this is more like a prop for a productive interview. Many insights can be revealed from the drawing alone that may not be discovered if an ordinary interview will be conducted. This is a good method if the research participants are young people.

Materials

- Bond paper or any paper where participants can draw
- Markers
- Crayons
- Pen
- Pencil
- Any art materials

How

- ▶ Ask the research participants to draw the places they usually visit in a given period (in a week, for instance) with their house (it can change depending on the researcher) as point of reference.
- ▶ The different places can be drawn around the house (or the reference point). You may ask the research participant to connect these places with a solid line for those that they visit regularly or with broken lines for those they seldom visit. These instructions may vary depending on the preferences or the needed information of the researcher.
- ▶ The researchers are free to modify the instructions. What is important is there is a common understanding between the researcher and the research participants concerning the data of interest.
- ▶ It would be good to provide a sample end product, as there would be some confusion along the way. There are participants who may have difficulty understanding the instructions at once.
- ▶ Data validation is important as people will have different interpretations of their drawings. Hence, a small group discussion where the participants will individually present their outputs is recommended. The richness of data that will be collected will depend on how good the facilitator is in throwing questions. Among young people, there is always the tendency to talk about topics that are not within the scope of interest. It is advised that the facilitators do not cut them when this happens. There might just be some discoveries, gold mine so to speak, along the way. Interrupting them may result in fragmented and poor data.
- ▶ The wealth of data that will be collected also tends to wane as the presentations progress. It may also be affected by the level of confidence of the participants in presenting their outputs. Good facilitation is needed to raise the right questions and to boost the confidence of presenters.

Weaknesses

- ▶ The participants may copy the given example so the number of places/categories may be limited.
- ▶ Not recommended for groups exceeding 10 participants.
- ▶ Young people who are not quite good at drawing may feel inferior to show their work to others.



Historical timeline exercise with farmers from Siniloan, Laguna

HISTORICAL TIMELINE

“It is a tool to provide a visual representation of main events in a person’s life and for engaging the interviewee for constructing (his/her) story” (Adriansen, 2012, p.43).

This is a good method for understanding where the community is coming from. It can provide useful inputs that will explain why people will support a development initiative or not. In our case, we used this method in our scoping studies with parents as our research

participants. Our purpose then was to probe the status of the rice-farming industry in their area from the present to 10 years ago. Hence, we asked questions about significant events that have made an impact on the rice industry in their area during the said period. Of interest were natural calamities that happened such as floods, typhoons, and earthquakes.

Materials

- Manila paper
- Markers
- Ruler (optional)

How

- ▶ Choose a leader from the group, and give him/her the marker.
- ▶ Ask the group to draw a timeline, divide it according to the number of years covered by the exercise (If 10 years, then divide it into 10).
- ▶ Place the years covered by the timeline.
- ▶ Tell the participants about the focus of the exercise. For instance, please put in the historical timeline the significant events that happened concerning the rice industry in your area for the past 10 years (time reference may vary depending on the requirements of the researcher).
- ▶ It is oftentimes difficult to start this exercise as participants may find it challenging to prioritize the information that will be put in the timeline. Hence, it would be good to prompt the group at this point. For instance, the facilitator can ask the group: Please put there if there had been typhoons in the past that had significant impacts on rice farming in your community.
- ▶ As the exercise moves on, issues may arise. In some cases, the lead might take full control of the discussion, thus, leaving shy group members not to share information. You need to play it by ear. The success of the activity, more particularly the wealth of data that can be generated in the process, will be depend on the skill of the facilitator.

- ▶ The strength of this method relies on data validation. It happens when the participants may confirm with one another the accuracy of the information that is being placed on the timeline.
- ▶ In processing the information, the facilitator must be able to draw out from the research participants thick narrations of the significant events they placed in the timeline. Again, the richness of the data that will be collected will depend much on the ability of the facilitator to draw information from the participants.

Weaknesses

- ▶ If there is one in the group whose personality is way too strong, others might be uncomfortable to participate.
- ▶ Recall is always an issue in this exercise. The word “significant” in significant events may be construed by the participants in different ways. Hence, the wealth of the data that can be collected will depend on the richness of the discussion and the willingness of the group members to participate in the discussion.



Time transect

TIME TRANSECT

Time transect is useful to see “how people spend their time—time as a factor related to seeking services, time for being involved in work activities and time spent looking for food/resources” (Beazley & Ennew 2006, p. 195). This method is recommended if the aim is to peek on the time allocation of the research participants for a given period. In our case, we used this to know how young people allocate their time in a week.

Materials

- Crayons
- Coloring pens, pens
- Bond paper

How

- ▶ Ask the participants to draw a pie chart and divide it according to the different activities they perform in a week. They should be able to divide the pie according to the amount of time they spend for each activity.
- ▶ The researcher is free to set conditions (such as the duration of the exercise, coloring materials that may be used) as long as these are properly communicated to the research participants.
- ▶ Showing an example is good, but the researcher must highlight that it is just an example. Emphasize that the research participants must make their own.
- ▶ Data validation is important as people will have different interpretations of their drawings. Hence, a small group discussion is recommended where the participants will individually present their outputs. The richness of data that will be collected will depend on how good the facilitator is in throwing questions. Among young people, there is always the tendency to talk about topics that are not within the scope of interest. It is advised that the facilitators do not cut them when this happens. There may be new insights to discover. Interrupting them will result in fragmented and poor data in terms of detail.
- ▶ The wealth of data that will be collected also tends to wane as the presentations progress. It may also be affected by the level of confidence of the participants as they present their outputs. The facilitator must ask the needed questions and encourage everyone to speak.

Weaknesses

- ▶ The participants may copy the example so the number of places/categories may be limited.
- ▶ Not recommended for groups composed of more than 10 participants.
- ▶ Young people who are not quite good at drawing may feel inferior to show their work to others.



PEER INTERVIEWING

In this method, one of the participants serves as interviewer of his or her peers instead of the researcher. If the participants are quite hesitant to give information, oftentimes true with young people, or are not comfortable sharing information to strangers, this method is recommended. We have observed that young people tend to open up when they are with their peers as opposed to being interviewed by someone older.

Materials

- Digital recorder
- Interview questions

How

- ▶ Look for a student who has some interviewing skills (talkative, gregarious, people-person).
- ▶ Brief the student lead with the questions you would like to ask.
- ▶ Lend the digital recorder to the student.
- ▶ Ask the student to hold a group interview with his or her peers.
- ▶ Recommended group size is not more than 10 people; also properly identify the students you would like to include in the group (do some purposive sampling at this stage).
- ▶ Distance yourself from the group.
- ▶ Debrief with the student lead (the one you ask to lead the group interview).

Weaknesses

- ▶ Data from validation will depend on the interpretation of the lead.
- ▶ Need to cross-check data with other key informants.
- ▶ Generally, the group can be a bit playful or out of focus. This may affect the quality of data to be generated.

Note: An alternative to peer interviewing is to ask the teacher to serve as the interviewer. This is useful particularly if the conversation must be carried out in the vernacular. Usually, students are far more enthusiastic in answering questions in their native language.



J. Berto

San Jose National Agricultural and Industrial High School,
Occidental Mindoro

Infomediaries from Buluan National High School in General Santos City explaining the importance of the observation well in managing water in the ricefield.



Chapter 8

What champions do

In this chapter, we document the experiences of our implementers in implementing the Campaign. We feature five of our best schools—their challenges, innovations, and resourcefulness in bringing the Campaign in their respective areas. As it stands, most successful schools are those with strong support from their key officials, dedicated teachers, and those with good external support particularly from their respective local government units (LGUs).

Malalag National High School (MNHS)
Maitum, Sarangani
Participating School since 2013
Partner-teacher: Onofre Labrador
School population: More than 1,000 students



MNHS is among the most successful participating schools in the Infomediary Campaign. The school sits in a rice-farming community. Agriculture is the main source of livelihood in the area. Roads are paved and quite easy to reach using private vehicles. The school is a center of learning for secondary education in the area. It has an annex that serves quite a number of ethnic minorities. Poverty incidence is quite high in the surrounding community in the annex site.

The school has pioneered several activities that proved to be beneficial in advancing the advocacies of this Campaign. Of the many accomplishments of MNHS, the most significant is it has engaged five other schools to participate in the Campaign. The participating teacher,

Mr. Labrador, distributed the presentations saved in compact discs to the nearby schools. He also distributed starter seeds to the schools so their students, too, can start their rice gardens. Maguling High School, among those engaged by MNHS, is now an active participant of the Campaign.

Strong support from the school principal and the faculty is among the key strengths of the implementation of the Campaign in MNHS. The hands-on principal ensured that everything was done according to plan. She had a good understanding of the Campaign in terms of what it seeks to do especially for the farmers in the surrounding community of the school. The interest of the school principal on the Campaign and on agriculture is reflected in some of the school's facilities and surroundings. Vegetables, seed nurseries, edible landscaping, and a rice garden are present inside the school campus. MNHS is a vibrant agricultural campus.

She also sent her staff members to national training programs and seminar-workshops. Moreover, the principal provided pocket wi-fi devices to teachers especially those handling ICF. The move was to address the poor internet connectivity in the area. With wifi connection, the teachers were able to access PinoyRice.

Likewise, there was strong evidence of knowledge sharing among teachers. The members of the faculty also used the teaching modules given to Mr. Labrador. They used the materials in science and other related subjects. They saw the relevance of the modules in other subjects aside from crops production. The modules were on climate change and rice production, expressed in Filipino, and tailor-fitted for young people. During the Infomediary Quiz Bee in 2015, the students obtained high scores (85-90% on average). This reflects the quality of teaching given to the students.

MNHS was also among the pioneers in setting up an Infomediary Corner, a space where teachers put all the publications given to them by PhilRice. This provides students easy access to the materials, which they can borrow so their parents can read and learn about the technologies applicable to the farming conditions in their community.

Lastly, MNHS enjoys strong ties with its surrounding community. About 20-30 farmers attended the campaign events held in the school.

Claveria Rural Vocational School (CRVS)

Claveria, Cagayan

Participating school since 2013

Partner-teacher: Elviranida Manuel

School population: About 1,000 students



CRVS is located at the heart of Cagayan Valley. The place is scenic as it is surrounded by mountains and beautifully arranged rice fields. Rice farming is a huge enterprise in the area as evidenced by the giant rice fields and impressive irrigation facilities. CRVS is a technical-vocational high school with good facilities. It is accessible because of the paved roads. The school is about 5km near the town center and commercial establishments.

There are plenty of firsts in CRVS as far as implementing the Infomediary Campaign is concerned. A number of innovations have been documented in this school and endorsed by the team for wider practice among participating schools.

CRVS made a mark when it established its rice garden beside the farmers' fields in the area. The land was lent to them by a municipal official. This move proved to be a success when the three rice varieties planted in the rice garden outyielded the varieties planted by farmers in nearby fields. Consequently, the school had to answer questions from the farmers regarding the agronomic characteristics of the varieties the students planted, certified seeds, and other relevant questions. To further promote the use of certified seeds, the school gave starter seed packs to several farmers to plant. Certified seeds promise a 10-15% yield advantage over regular seeds.

CRVS was the first to hold an Infomediary Field Day where the students discussed with the farmers the farm management practices they employed. The Local Government Unit (LGU) strongly supported the event. The Municipal Agriculturist was present and helped in answering questions from the farmers. Additionally, the ICF teacher made an e-quiz platform for the students about the Infomediary Campaign.

One driving force that ensured the successful conduct of the Campaign in CRVS was the strong leadership of the partner-teacher, Mrs. Elviranida Manuel. She pulled several strings so the Campaign could be implemented the best way possible. She liaised with the municipal official to lend the school some land for the rice garden (farm). She collaborated with the ICF teacher so the PinoyRice Offline version could be installed in the computers of the school. She thoroughly explained the Campaign and its benefits to the principal and the technical-vocational education head. Mrs. Manuel regularly collaborates with the team at PhilRice Central Experiment Station (CES) in Nueva Ecija. Mr. Allan Tomas, the ICF teacher, actively posts milestones of the school's activities in the Facebook group of the Campaign.

As of this writing, the school has cleared some area inside its campus for another rice garden, which will showcase some upland rice varieties.

San Jose National Agricultural and Industrial High School (SJNAIHS)

San Jose, Occidental Mindoro

Participating school since 2013

Partner-teacher: Elizabeth Pajarillo

School population: More than 1,000 students



There is massive agricultural activity in the community that surrounds SJNAIHS. Roads going to the school are paved. The school serves some of the rural communities in San Jose, Occidental Mindoro, a town accessible by plane from Manila. SJNAIHS is a big school and a center of learning for secondary education in the area. The school has a computer laboratory with more than 40 units of computers and planting areas for practicum.

SJNAIHS is the school that has taken the Infomediary Campaign up a notch with its student extensionists initiative. The participating teacher, Mrs. Elizabeth Pajarillo, tapped her best students to serve as resource persons in a farmers' forum on climate change and rice production. The

students used the same presentations provided in the training that was attended by Mrs. Pajarillo as part of the Campaign. They skilfully discussed the topics assigned to them such as adaptation and mitigation mechanisms, and general knowledge on climate change and rice production. They were supervised by Mrs. Pajarillo during the discussion.

Aside from the student extensionists initiative, it is important to also highlight the strong leadership qualities of Mrs. Pajarillo. The student extensionists initiative was an outreach activity that required high skills in community mobilization. Mrs. Pajarillo exercised high-level coordination skills as evidenced by the way she sought assistance from the team based in Nueva Ecija for her activity. Mrs. Pajarillo also exercised good communication skills especially when she was orienting the school principal and her co-teachers about the Campaign. As expected, they strongly supported the Campaign.

Likewise, Mrs. Pajarillo arranged an activity in collaboration with the Campaign Team to engage other schools in Occidental Mindoro in the Campaign.



E. Pajarillo (Uploaded in our Facebook Group)

Bayanihan National High School (BANHS)

Maria Aurora, Aurora

Participating School since 2012

Partner teacher: Jonaffer Paulino | Marilaya Agno

School Population: About 500 students



BANHS is an upland community high school in Maria Aurora, Aurora. While it is just a few kilometres from the town center, going there can be difficult. The surrounding community relies heavily on agriculture. Upland rice farming is widely practiced in the community.

Plenty of the strategies and activities being implemented in the Infomediary Campaign nationwide came from this small community high school in Maria Aurora, Aurora. One of the pilot schools for the Campaign, BANHS was then led by school principal, Dr. Charlaw Quiben. He was a risk taker. It was not easy saying yes to participating in the piloting of a development initiative and yet, Dr. Quiben showed all-out support to the Infomediary Campaign. He sat with the team in planning the activities

and commented on the littlest details to ensure success of this initiative. He also engaged the chieftain and local officials in the village to participate. Dr. Quiben made sure that the officials of the school will not hinder the success of the initiative in BANHS.

While Dr. Quiben worked hard in soliciting community support for the initiative, the village officials should also be commended for their active participation. In almost all meetings convened during the Campaign, the chieftain was present. He was very active in leading the community to support the Campaign.

Through the years, the school has produced students who became credible infomediaries. There were plenty of cases when recommendations by the students concerning new rice farming technologies and practices were followed by their parents. The school has also produced students who studied agriculture in college.

BANHS has been very creative in implementing the Infomediary Campaign. Some of its students even won in division level student research competitions for their work using the leaf color chart, an instrument used in determining the need for nitrogen in rice plants.

Guihulngan National Agricultural School (GNAS)

Guihulngan, Negros Occidental

Participating school since 2014

Partner teacher: Jannette Ledon

School Population: About 1,000 students



GNAS is among the most remote sites of the Campaign. Roads are unpaved, hilly, and quite inaccessible. Nonetheless, the school had plenty of achievements implementing the Infomediary Campaign.

The DepEd Division Office in GNAS showed strong support to the initiative. This support, hence, was cascaded down to the support given by the school principal and the faculty.

GNAS pioneered the information drive on climate change and rice production in the village where the school is situated. Farmers and other stakeholders participated in the activity.

Moreover, GNAS is among the very few schools that have installed the offline version of PinoyRice.

Random list of innovations from other schools

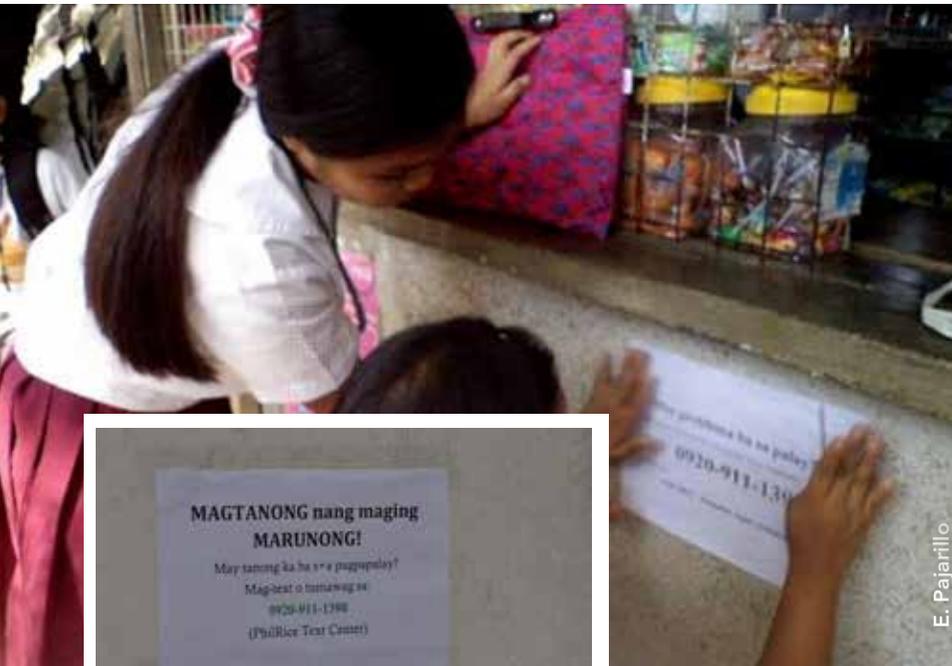
Aside from the best-fit practices of the five best schools cited earlier, other schools do have their share of innovations.



Bond Paper-sized advertising

Samar National Pilot Opportunity School of Agriculture (Eastern Samar) and San Jose National Agricultural and Industrial High School (Occidental Mindoro)

The participating teacher asked his students to do a bond paper-sized poster to promote the PhilRice Text Center so farmers can send their queries. The initiative led to an increase of farmer-texters in the area. The promotion was inexpensive and the message effectively penetrated the community.



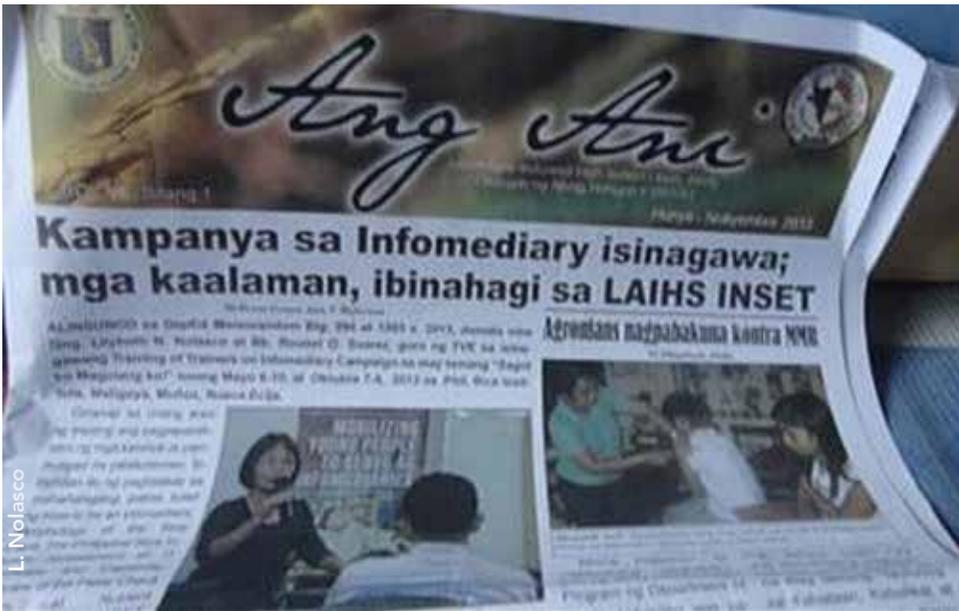
E. Pajarillo



Publishing of rice production technologies in school newspapers

Pilar Rural High School (Abra) and Libon Agro-Industrial High School (Albay)

The students from these two schools published a how-to article on some rice production technologies they learned from PhilRice. Some of the technologies reported were the *dapog method* of crop establishment and 40-kg technology (proper seeding rate). This is very innovative as it means wider reach for cost-reducing and yield-enhancing technologies on rice. For instance, if there were 1,000 copies of the school newspaper, this means that 1,000 people were reached by those technologies. The article was published in a newsletter that had about 1,000 circulation.





Discussions during Parents and Teachers Association Meeting

Balbalan Agro-Industrial High School (Kalinga)

Sharing information on the Campaign with people in far-flung communities posed a great challenge to the team. In the case of Balbalan Agro-Industrial School, this problem was resolved by adding the Campaign into the agenda discussed in parent-teacher meetings.





Integration across subjects

*Ilocos Norte Agricultural College (Ilocos Norte) and
Balagtas National Agricultural High School (Bulacan)*

Ideally, the lessons learned by the partner teachers from the training component of the Campaign should be integrated in the crops production subjects they handle. There were teachers in some schools, however, who integrated what they have learned in subjects like Math, Filipino, Science, and even Preparatory Military Training. For instance, a teacher related a worded problem in math to rice production. This approach reinforces the Campaign messages among the students.





Visiting PinoyRice website by group

Cateel National Agricultural High School (Davao Oriental)

The school had no computers and internet connectivity. To access the internet, the students went to the market area to rent a computer at an internet shop. Since computer rental can be costly, the students went in groups when they needed to access the PinoyRice.



K. Balmeo



Seed distribution and technology promotion

Leyte Agro-Industrial High School (Leyte)

The students from Leyte Agro-Industrial High School distributed seeds from their harvest from their rice garden to the farmers in their community. They also showcased the modified *dapog* technology and farmers were encouraged to duplicate the technique in their farms.





Video showing using PinoyRice offline version

*Agusan Pequeño National High School (Agusan del Norte)
and Cabatuan National High School (Iloilo)*

The participating teacher used the videos in the PinoyRice offline version during classes to show students the different farming technologies. This is a productive use of the PinoyRice platform, which contains rich information on rice production in the Philippines.



D. Clarito (Photo uploaded in our Facebook Group)



Infomediary Corner

Cateel National Agricultural High School (Davao Oriental) and San Pascual National Agricultural High School (Bohol)

The participating teachers set up a separate corner in their school, usually in the school library, for the reading materials on rice provided by the Campaign. They also arranged a loaning scheme so the students can borrow the materials especially if they need to explain information using these to their parents.





INFOMEDIARY AWARDS FOR THE STUDENTS

Libon Agro-Industrial High School (Albay)

The teacher encouraged students' participation in the Infomediary Campaign in Libon Agro-Industrial High School with an awards system for the students. This strategy is in line with the edutainment (education and entertainment) approach, which suits young people.



Part 3

Immediate outcomes and field reflections

In this last part of the book, we aim to show some outcomes of the Infomediary Campaign as well as some reflections in doing development work.

CHAPTER 9

basically answers the question: What happened after engaging the high school students? Is there any evidence of outcomes?

CHAPTER 10

reflects on the whole process. What are some of the learnings in doing development work that can be derived from the Infomediary Campaign?

Elias P. Dacudao Gumalang School of Home
Industries, Baguio District, Davao City



Chapter 9

Communities and the Infomediary Campaign

Any development initiative must be able to answer the question relating to how the intervention is making an impact on the lives of the people it intends to affect. This chapter shows some notable outcomes that have happened in the communities where the Infomediary Campaign operates. The data presented are from our interviews gathered through random visits, Facebook posts of the teachers, and snowballing.

Adopted technologies

Table 4 was drawn from our data collected in 2014. While the data in this table is not exhaustive, it shows that there have been some fruits in engaging young people as infomediaries. Several instances of technology adoption/adaptation from different provinces nationwide were documented. Inexpensive and easy-to-follow technologies, like certified seeds, were likely to be adopted as opposed to the more technical and expensive technologies such as machines. The team also observed that some technologies, such as water management and synchronous planting, require massive community involvement to be adopted. For future initiatives, adoption at the community level should be given careful consideration.

Table 4. Adopted technologies in the Infomediary campaign sites

School	Province	Adopted Technologies
Ibona National High School	Aurora	Integrated Nutrient Management (application of zinc sulphate in low lying fields); not burning of rice straw
Libon Agro-Industrial High School	Albay	Use of Minus-One Element Technique, Leaf Color Chart, and certified seeds, not burning of rice straw
Dingle National High School	Iloilo	Use of 40-kg technology for certified seeds
Ilocos Norte Agricultural College	Ilocos Norte	Use of 40-kg technology for certified seeds
Panan National High School	Zambales	Use of 40-kg technology for certified seeds, controlled irrigation, integrated nutrient management (fertilizer application)
Balagtas National Agricultural High School	Bulacan	Integrated Pest Management (judicial use of pesticides)
Malalag National High School	Sarangani	Use of certified seeds
Claveria Rural Vocational School	Cagayan	40-kg technology for certified seeds
Bayanihan National High School	Aurora	Integrated Pest Management (cultural method of controlling pest e.g. use of attractants for rice black bug)
Southern Samar National Comprehensive High School	Eastern Samar	Use of certified seeds

Successful infomediaries and what they have in common

During the field validation, we noted several students who have been very successful in their role as infomediaries. Their parents followed their recommendations based on what they learned from the Campaign activities.



Ariane, infomediary from BANHS, with her father.

Frank is from Aurora. He was able to convince his father to plant NSIC Rc222, a modern and high-yielding variety of rice. The result was favorable, about 20-30% yield increase over their previous variety, and hence a successful act of promoting use of high-quality seeds.

Siblings Ariane and Ara Mae, also from Aurora, were successful in convincing their father to use biological control agents to manage rice black bugs. This resulted in PhP 2,800.00 savings, the amount they usually spend in buying pesticides.

Abe Joy is from Bulacan. She convinced her father and uncle to reduce pesticide use and focus instead on optimizing the dynamics between harmful and beneficial organisms. An impact video is available in the Infomediary Campaign website (www.infomediary4d.com) showing Marie's uncle and father talking about the significant changes in their farming practices brought about by Abe Joy's recommendations.



Focus group discussion with infomediaries from BANHS.

Other infomediaries we interviewed talked about how they promoted several rice production technologies such as controlled irrigation and the leaf color chart.

We reflected on the experiences of our infomediaries, and we found some similarities. First, they were all top-performing students. They all graduated with honors. Second, while they come from rice-farming households, evidence is scarce to show that they were heavily involved in farm work except for Frank. These students, however, had a strong sense of empathy and desire to help their respective families. This is related to

the statement of Ramirez et al., (2013) that being an infomediary requires affective and intellectual dimensions.

Drawing on from these observations, it is best to craft strategies around the social and cultural contexts of the youth to better engage them. These observations likewise support our earlier finding that involvement in farm work is not a precondition to being an infomediary.

In our earlier work, we tried to classify the infomediaries we have documented (Manalo et al., 2013). They are farming ally, initiator, and champion. The descriptions of each are presented in the table below. This information is necessary in properly mobilizing the students to serve as infomediaries. The number of students belonging to each category can vary per school, which will ultimately depend on the extent of involvement that will transpire. The ideal is to increase the number of champions.

Table 5. Classifications of infomediaries in rice farming (Manalo et al., 2013)

Classification	Description
Champion	Does things beyond what is expected; radiates what he/she has learned to others; shows leadership in exercising infomediary functions
Initiator	Volunteers to search for information; shares information in the household
Farming ally	Responds to queries

After knowing how the students would best function as infomediaries, the next concern is what happens to the information that they share with their parent-farmers and other members of their community? Or to see it from a different perspective, what are the thought processes involved on the part of the receivers, or in this case the farmers?

The next illustration (Figure 9) shows the three possible responses of farmers upon getting information on farming from their children and students in the community. They could either dismiss, verify, or practice immediately what they learned. These responses are based on the interviews and snowballing activities the team has conducted as part of the field validation.

There were several instances when farmers dismissed outright the information they received from the students. For one, the farmers perceived that students did not have much experience on farming. They also saw no need for assistance in the work that they have been doing for many years.

On the other hand, several farmers gave the students a chance by verifying the information that they received. The farmers either asked the teachers of the students, sent an SMS to the PTC, or asked their co-farmers. Having farmers verify the information they get is the ideal response. The Campaign does not aim to create rice specialists from among the students.

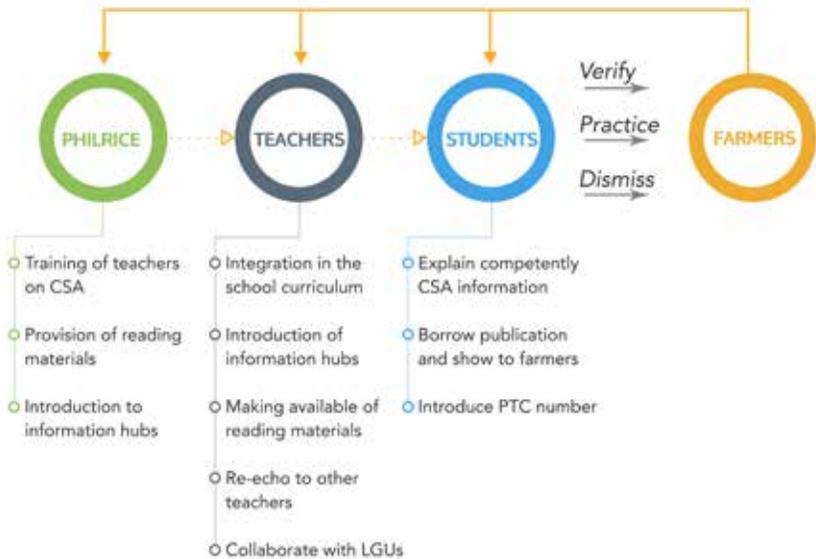


Figure 9. Information dynamics in the infomediary process

As infomediaries, the students are tasked to relay the PTC number to the farmers and it is the role of PhilRice to answer their queries. The bottomline is to start the conversation in the community regarding cost-reducing and yield-enhancing technologies on rice farming.

There are, however, instances when the parents or farmers practice outright the information they received. This is usually the case for the information passed on by our infomediaries who happen to be top students. This was the case of Frank, Abe Joy, Arriane, and other smart students. We noticed that these students can competently explain the science and the detailed practices or technologies that they are promoting. They read publications, ask the PTC, and access any available means of learning about rice technology and best farming practices.

Of the three responses, farmers verifying information are the most common (70-80%). Farmers dismissing shared information roughly accounts 5-10% of the cases. As for those who immediately applied what they have learn, the cases totalled 10-15%.

Based on the roles the students perform as infomediaries and the variety of possible responses of farmers towards shared information, there is a need to go beyond merely engaging the students. Reinforcement mechanisms should be put in place to increase the chance of this initiative to succeed. This is particularly true for farmers who see the need to verify the information they receive. Without mechanisms like the PTC and support from the teachers or co-farmers, it would be difficult for the

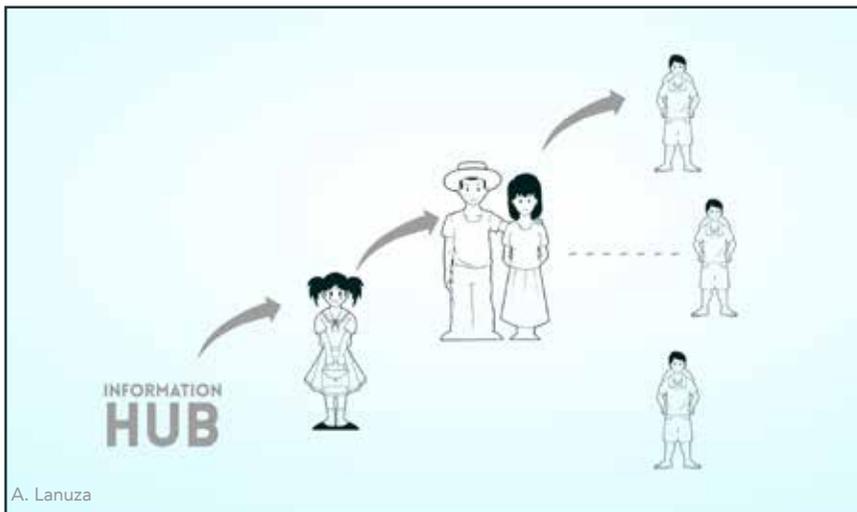


Figure 10. The information flow from the information source to the farmers in the community (Manalo et al. 2015a)

farmers to validate the claims made by the students; and this leads to the failure of this initiative.

Meanwhile, it would also be good to look at the extent of sharing that transpires from the information hub down to the farmers. Figure 10 shows the summation of cases documented in the snowballing exercises (Manalo et al. 2015a).

Based on the illustration, information flows from the hub to the students through activities such as texting to the Text Center or searching using the PinoyRice. The students share what they learn on rice farming with their parents. On the other hand, the parent farmers do not necessarily share what they know with other farmers in the community. Why is this so? There are several questions to be asked: What hinders the farmers from sharing what they know? Is it distance? Is there any transaction or opportunity cost involved? What can push them to share their knowledge with their fellow farmers?

Ilocos Norte Agricultural College,
Pasuquin, Ilocos Norte



Chapter 10

Reflections

The reflections of the team are grouped according to the following themes—information and communications technology (ICT), administrative issues, youth and agriculture, offline means of communication, gaining support, and doing national training programs. These are drawn from the three years of national implementation of the Campaign.

On Information and Communications Technologies (ICTs)

Free but not valued

Dole-out mentality is heavily frowned in the development literature. Some people working in development for years, however, may still be tempted to give away stuff to the community. The realization that free items are not always valued relates to the use of the offline version of the PinoyRice. The aim of the activity was to promote PinoyRice even in areas where there is no internet connectivity. Participating teachers were all given CDs of the offline version of PinoyRice, which can be installed in the computer laboratories of the schools. During the monitoring, however, we found that many teachers did not coordinate with the ICF teacher in their respective schools. The CDs were left uninstalled. Several reasons were cited: (1) no time in the computer laboratory to introduce the PinoyRice,

(2) the teachers follow a prescribed curriculum from DepEd, and (3) some teachers thought that the CD is only for teachers who attended the training.

Goals over tools

In recent years, there is this huge fascination on the use of ICTs in agricultural extension. It should be emphasized that ICTs are just tools, not the goal of the Campaign. Their application should always be in the right context. The goal of the Campaign is to address information poverty. Focusing on the goal means not being fixed on the use of one tool but exploring other tools and channels, whether offline or online. It is important for project implementers to focus on the development goal and not on the tools (Qiang et al., 2011).

Better promotion for better use

To harness the use of ICTs in addressing the needs of the community, these tools have to be explained properly. During the first year of the national implementation of the Campaign, we noticed that stakeholders had a lukewarm response towards using PinoyRice and the Facebook Group. We attribute their response to the poor promotion (if promotion was at all done) of these platforms in many schools. In the second year of national implementation, the group exerted greater effort to promote these platforms. After some time, we noticed a change in the responses of our stakeholders and many of them started using the platforms as evidenced by the survey we conducted.

Meanwhile, promoting use of technology is just one side of the coin. It is not uncommon for some folks to have “ICT anxiety” or the feeling of discomfort in using ICTs (Brosnan, 1998). ICT anxiety is a lingering concern in the rural areas, an issue that merits serious attention (Manalo, 2013).

We documented massive number of ICT anxiety cases in the rural areas. Lee (2005) notes that the technical capabilities of young people in using ICTs entirely depend on many factors such as access and experience in using the computer. ICT capabilities of the youth may vary from one area to another.

In our surveys, we noticed female students were more likely to have ICT anxiety than male students. This observation affirms earlier findings



Infomediaries from Balbalan Agro-Industrial High School, Balbalan, Kalinga

of Brosnan (1998). ICT anxiety is also common among students from schools with poor access to computers. In some areas, computers are considered high-priced commodities such that not everybody can afford and use them.

Brosnan (1998) explained that exposure is a key factor in addressing ICT anxiety. In the final analysis, when looking at ICT issues, one should not just look at the technology-related issues, but also look into the social issues (Warschauer, 2003; Unwin, 2009).

Keep it simple and easy

Adapting can be difficult for some people so it is important to develop ICT platforms that are simple and easy to use. Since we were just tapping on what the students and farmers were already capable of doing, which is texting in this case, introducing the PhilRice Text Center (PTC) to them was a breeze. The PTC is an SMS facility with very simple mode of operations. It was heavily used by the infomediaries in at least five provinces.

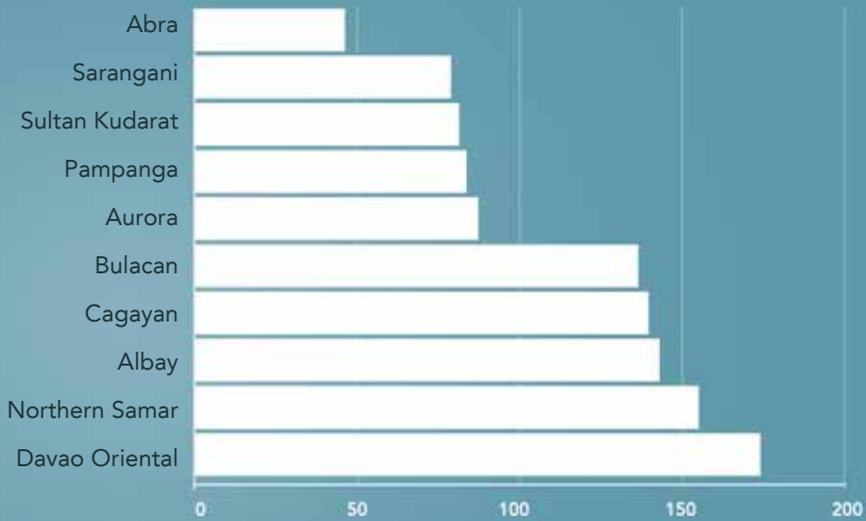


Figure 12. Infomediary texts, 2012-2013 (Manalo et al., 2015a)



Figure 13. Frequently asked questions, 2012-2014 (Manalo et al., 2015a)



J. Berto

Focus group discussion with the school officials of Batac National High School (Bungon Campus), Batac, Ilocos Norte

Administrative issues

Petty issues on the ground can have significant impacts on the implementation of the Campaign (Manalo et al. 2014a; 2015a). We documented quite a lot of these issues, but we will only present some of the frequently recurring issues.

It is important that major stakeholders in the school must have multilogues to ensure the Campaign runs smoothly. Usual issues arise when people do not communicate with one another. Some issues that we documented were school officials not being briefed properly about the Campaign and a conflict between the ICF and crops production teachers. In our experience, we were able to settle most of the differences when we had multilogues with concerned parties. We had focus group discussions where we presented the Campaign fundamentals and asked our stakeholders about their concerns that must be addressed. For some reasons, there is just this need for an external mediator for the differences to be fixed.

During the first national implementation of the Campaign, we noticed that there were many schools that were unable to properly implement it. The major reason was the teacher sent to the training was not assigned a crops production teaching load (Manalo et al., 2015a). Apparently, the specialization of some teachers were not aligned with the training. Learning from that mistake, the DepEd and the team agreed that only the teachers who will handle crops production classes in the coming school year should attend the training. Hence, in many respects, the second year of the Campaign was way better than the first as far as implementation was concerned. This time, the teachers knew very well the relevance of the training that they had attended, and they were competent enough to implement it.

Another administrative issue we had to face was the bureaucratic process. At some point, there were just plenty of papers that we had to prepare for every single thing that we had to do. Hence, it requires plenty of adjustments, patience to reckon that things will fall into place at the right time. It requires a lot of explaining to people especially if the transactions are not common but are very important.



Modified *dapog* method exercise of infomediaries from F.F Halili National High School, Sta. Maria, Bulacan.

Youth and agriculture

Based from our experience, we recommend the review of agricultural subjects that require fieldwork. Generally, field work activities in school were done when the sun was high up at 10am -12nn (Manalo et al., 2015b). Hence, young people did not want to participate. Some students just threw away the seeds. Meanwhile, in some schools that held fieldwork activities either early in the morning or late in the afternoon, high engagement with the students was reported. The students preferred this timing of the fieldwork activities since they were not exposed to the scorching heat of the sun. For those who took fieldwork activities in the afternoon, there was no need for them to clean themselves for other classes.

While running the campaign, we made several attempts to change the mindset of the students towards agriculture. Many of them believe that there is no future in agriculture. They relate it with drudgery and poverty. These are longstanding beliefs with several hard evidence as support. The challenge then was to break that mindset and communicate a different message to young people.

In 2009, there was a small campaign of PhilRice launched during the celebration of the National Rice Awareness Month in November. The theme was “The future is bright; the future is rice;”. The aim then was to show the different careers in the rice industry and in agriculture in general. Taking off from that small campaign, we held student field days, fora, and study tours.

For the student field days, we invited participating schools to PhilRice to see the state-of-the-art technologies on rice. In the same event, we had talk shows with the young professionals of PhilRice as panelists. The panelists talked about their work, specifically on why agriculture is an exciting field to be in. In the study tours, we exposed the students to several high-end machines and visited institutions in the Science City of Muñoz such as the Central Luzon State University, Philippine Center for Postharvest Mechanization and Development, Philippine Carabao Center, and Bureau of Fisheries and Aquatic Resources. From these field exposures, the students were able to see agriculture as a promising field to study and work in.

From our evaluation, promotion and study tours were most influential in changing the minds of the students towards agriculture. The text below will prove this observation (Manalo et al., 2014a):

“She was supposed to take accounting in Saint Louis University in Baguio City, but when she went to Central Luzon State University, she had a paradigm shift [she’s now interested to take agriculture]” (Father of a student from MANHS).

We tried to track down the students who participated in the Infomediary Campaign in Aurora. As of this writing, we found that some of them are pursuing agriculture and related fields in Central Luzon State University and Aurora State College of Agriculture and Technology. During the 29th National Rice Research and Development Conference at PhilRice Central Experiment Station in Nueva Ecija, the school administrator of Malalag National High School noted that they had about 60 students who took agriculture-related courses in college. In our focus group discussions with participating teachers, they noted that enrolment in horticulture, under the crops production class, had significantly increased owing to the massive activities of the Infomediary Campaign in their school.

This renewed interest in agriculture among the youth, after an intensive promotion, is not difficult to understand. For instance, if one traverses EDSA, the main thoroughfare in Metro Manila, one can see many billboards and advertisements on nursing, seafaring or information technology, but not much on agriculture. Introducing students to the relevance and excitement of agriculture as a career option in college will help shape their perceptions and influence their subsequent behaviour towards agriculture.

Offline means of communication

Use of offline means to convey information does not appeal much to donors either locally or internationally. It is not the “in” thing so to speak. A proposal that highlights the use of printed publication will most likely miss the chance of being funded as opposed to if one were to cite use of ICTs in conveying information to poor people.



Our partner teacher and his students from Sumoroy Agro-Industrial School, Sumoroy, Northern Samar.

In our research, we found that offline means remain useful in a variety of ways (Manalo et al., 2015a). We have several sites where electricity or mobile phone signal would seem a luxury for them. In one of our focus group discussions, we randomly asked who did not have electricity in their houses. To our surprise, more than half of the students raised their hands. Given this prevailing situation, offline tools will remain useful.

As opposed to ICT-based modalities, offline means are not very easy to document in terms of how useful they are to the intended recipients. For ICT-based platforms such as the Text Center, we are able to track the students who send SMSs. This indicates that they are actively searching for information. For offline means, we monitor usage through on-site observation. A good indicator of the mobility of publications is if the reading materials are torn out or in a condition that will prove that they have been read. Interviews also help in figuring out if the publications have been put to good use. This requires a lot of diligence, but that is more or less the case. Another indicator that publications are put to good use is the setting up of loaning schemes of teachers. This initiative was put in place for students who need information on rice farming, which they can share with their parents or other farmers in the community.

Gaining support

Theoretically, support to the Infomediary Campaign has been strong right from the start. The idea of mobilizing young people to serve as information providers in the agriculture sector has always been tagged as innovative in many respects.

In 2012, during the pilot phase, budget was PhP300,000.00. In 2013, it went up to PhP 450,000. It also managed to gain support from the DA-Regional Field Office in Central Mindanao, which led to another piloting in Apolinario S. Bernardo Memorial National High School in Tacurong City in Sultan Kudarat (PhP 250,000). The DA-RFO in Central Luzon likewise gave some funding amounting to PhP 750,000. In 2014, PhilRice invested PhP 450,000 for the Campaign. The CGIAR Research Program on Climate Change, Agriculture, and Food Security came in with PhP 1.6M fund support. In 2015, PhilRice and CCAFS both invested PhP 2M each for the Campaign.

As support came pouring in to the Infomediary Campaign, it took 3 years before the million budget mark was reached. It required a lot of hard work in writing papers and presenting to various stakeholders to convey the key messages of the Campaign. Initially, it was difficult to convince people with simply bits and pieces of ivory-tower theorizing information. We received doubts from all points—*Young people do not want to farm, how can you manage to engage them? If you engage young people, how sure are you that they will convey the right message to farmers? We've tried similar initiative in the past, but we failed. What makes you think you will be successful this time?*

During this stage, it was crucial to look for people and institutions that were willing to risk and support the idea. We found quite a few of them in the PhilRice management and various scientific organizations here and abroad. The experts' reviews of our publications were also remarkable and helped us push the Campaign to interesting directions.

Writing papers for conferences was intellectually demanding. Passing the scrutiny of international reviewers was such a huge accomplishment for us, as it affirmed the relevance of the Campaign theoretically and pragmatically speaking. The awards we reaped for the papers we presented helped us to solicit more support for the Campaign in one way or another.

Doing national training programs³

The first training we conducted in December 2012 was a learning experience for us. We were dead tired upon completing the training. There was some sort of disbelief that we were able to make it.

From where we stand, there are plenty of reflections. First, it is not true that money will run everything. Our less than PhP 100,000 for a national training program can very easily prove this. There were plenty of things that we managed to do simply because of charm, friendship, and the fact that there are many PhilRice staff members who really mean to serve this country. As implementers, we were ashamed of the literally small token we gave them for helping us carry out the task, yet we did not hear anything from them. Instead, they gave us support and encouragement.

Second, it is impossible to work on something that you do not believe in. One has to firmly believe in the advocacy before he or she could work on it. As a group, we always had regular sessions together, and a good portion of these meetings is spent on asking how things are especially in relation to the workload. A significant number of topics were covered by the team members. During the first national implementation of the Campaign, I could sense that it was indeed difficult for the other three members of the team owing to their main commitments to the division. The Campaign was an added heavy load for them. Without commitment, we feel that it would have been impossible to survive the tasking jobs we had to do during the first national implementation.

Third, creativity and resourcefulness will surface when needed. Implementing a campaign with meager resources will push someone to the limit. The endless negotiations we had with the cafeteria manager to come up with a menu fitted for our budget, and with the training dormitory manager for arrangements that we can pay all required patience, creativity, and resourcefulness.

³I - account by Jaime A. Manalo IV

Fourth, to be in the team, one must be physically fit. I could not imagine the number of times when we had to run, chase the participants or the microbus, or the times when we had to carry some supplies to the farm for the demonstrations and other activities. Given what we had to go through, it is not easy to hire staff members who have the intellectual capacity and the physical agility for a project like ours.

Fifth, ICTs are good and helpful when applied in the right contexts. When some of the older participants were having a hard time joining the closed Facebook Group, we felt guilty. At some point, we thought that we should stop it. On the other hand, we felt that was the right thing to do as it would be way too difficult to monitor each of them when they go back to their respective schools. We then had to lower our expectations. For those who had difficulty using the internet, we told them to collaborate with their ICF teachers who will be in charge of uploading and sharing to the group on their behalf. At present, the FB group is still active and has since served its purpose of being the knowledge and sharing hub for our infomediary teachers. It is the cheapest way to monitor and learn. We appreciate the fact that there are plenty of teachers in areas with poor internet connectivity who find ways to post what is going on in their respective schools.

Leyte Agro-Industrial High School
Leyte, Leyte



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Appendices

Presentations

Title	Event
Climate-smart agriculture: Do young people care?	23 rd Federation of Crop Science Societies of the Philippines Conference, 11-16 May 2015, Pampanga, Philippines
Youth and agriculture: What we should know	23 rd Federation of Crop Science Societies of the Philippines Conference, 11-16 May, Pampanga, Philippines
Schools as climate-smart agriculture information hubs	Global Science Conference in Montpellier, France, 16-18 March 2015
The Infomediary Campaign in the Philippines	ASEAN training on IEC materials development and the use of social media for agricultural dissemination, Agricultural Training Institute, Diliman, Quezon City, 15-22 March 2015
Radio interview participation of one of our infomediaries	World Radio Day segment on voices of the youth (An infomediary from Aurora talked about concerns in agriculture), DZRH Manila, 13 February 2015
PhilRice-DepEd The Infomediary Campaign	Training-workshop for industry linkage school coordinators, Tagaytay City, 17-21 November 2014
The Infomediary Campaign in the Philippines	Innovative extension services Workshop, Pasig City, 17-21 November 2014
Infomediary Campaign in Malalag National High School in Sarangani and Claveria Rural Vocational High School in Cagayan (Presented by representatives from participating schools :Corazon Llapitan and Flor Mallare	27 th National Rice R&D Conference in PhilRice, Science City of Muñoz, Nueva Ecija, Philippines, 3-4 September 2014

Title	Event
Evidence of evidence: The youth as infomediaries	27 th National Rice R&D Conference, Maligaya, Science City of Muñoz, Nueva Ecija, 3-4 September 2014
Addressing information poverty in the uplands through the infomediaries	6 th Asia-Pacific Association of Educators on Agriculture and the Environment, Inc. International Conference, Villa Caceres Hotel, Naga City, 18-22 August 2014
Infomediary Campaign issues and best practices	46 th Crop Science Society of the Philippines Scientific Conference, Cebu 12-16 May 2014
The Infomediary Campaign: Mobilizing young people to serve as infomediaries	Rice technology transfer systems in Asia training, Suwon, South Korea, 21 April -3 May 3 2014
Engaging youth in agriculture	Kasamahan Seminar, St. Theresa's College, Quezon City, 7 November 2013
Upland high school students as information providers	CPRSOUTH7 Conference, Port Louis, Mauritius, 5-7 September 2012
Making a case for infomediaries in the upland farming communities in the Philippines	CPRSOUTH7 Conference, Port Louis, Mauritius, 5-7 September 2012
Difficult terrain or absence of innovative strategies?: Bringing agricultural information to upland communities in the Philippines	Philippine Extension Network Symposium, Aklan State University, Aklan, 2-5 May 2012
Really they hate farming?: Challenging dominant orthodoxies on Filipino youth's perceptions on rice farming	42 nd Crop Science Societies of the Philippines Scientific Conference 16-20 April 2012

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Awards

International

A photo (this book's cover photo) of students doing agroecosystem analysis won in the 5th Annual Photo Contest, May 2016, under the Empowering Youth Category organized by the International Research and Exchanges Board (IREX), an international NGO based in the US.

A video documentation from our site in Davao Oriental won in the 2016 international video competition by the International Monetary Fund (IMF).

Commendations for the Infomediary Campaign. Communication for Social Change Awards 2012 and 2014. Centre for Communication and Social Change, School of Journalism and Communication. University of Queensland, Australia.

One of the 10 outstanding papers during the Communication Policy Research (CPR) South 7/ ICTAfrica 2012 in Mauritius (outstanding papers were published in the journal *info*). Paper title was "Upland high school students as information providers" by Manalo, J.A.IV, Balmeo, K.P., Berto, J.C. Domingo, O.C., and Saludez, F.M.

Best Qualitative Conference Paper: International Conference in Communication and Media 2012, Malaysia. Paper title was "Beyond Facebook: The undocumented experiences of young rural Filipinos on ICTs by Manalo, J.A. IV and Van De Fliert, E.

Local

Regional nominee in the 2015 PAG-ASA Award by the Civil Service Commission

Best paper for the Extension Category of the Crop Science Society of the Philippines Conference, Palawan, 16-20 April 2012 (Really, they hate farming? Challenging existing orthodoxies on Filipino youth's perceptions on rice farming by Manalo, J.A.IV and Van De Fliert, E); same award during the Federation of Crop Science Societies of the Philippines Conference, Cagayan de Oro City, 14-18 March 2013 (What works in engaging the youth in agriculture: The Infomediary Campaign in Aurora, Philippines by Manalo, J.A. IV, Balmeo, K.P., Berto, J.C., Domingo, O.C. and Saludez, F.M.

About the Authors

Jaime A. Manalo IV, Infomediary Campaign team lead, is a Senior Science Research Specialist at the Development Communication Division of the Philippine Rice Research Institute (PhilRice). He has published research on information and communications technology for development and development communication. He served as head of the Development Communication Division of PhilRice from 2014 to 2015. He obtained his Master of Communication in the field of Communication for Social Change from the University of Queensland. He finished his Bachelor of Science in Development Communication major in Development Journalism at the University of the Philippines Los Baños.

Katherine P. Balmeo is an information technology professional. She handles PinoyRice, a web portal on rice farming in the Philippines. She leads the Surf component of the Infomediary Campaign. She obtained her Bachelor of Science in Information Technology from Central Luzon State University.

Jayson C. Berto is a development communication practitioner. He serves as the in-house photographer and videographer of the Campaign. He won two international awards for his work in the Infomediary Campaign (video competition by the International Monetary Fund and the 5th Annual Photo Contest by International Research and Exchanges Board (IREX), an international NGO based in the US). He obtained his Bachelor of Science in Development Communication from Benguet State University.

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