



FERTILIZER BUYING GROUP OF STUNG CHINIT FWUC WITH BAYON HERITAGE HOLDING GROUP

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AUTHOR: HY THY (GRET)¹



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ACRONYMS

AFD	<i>Agence Française de Développement</i>	ISC	Irrigation Service Center
BHG	Bayon Heritage Holding Group	NGO	Non-Governmental Organization
FO	Farmer Organization	SNEC	Supreme National Economic Council
FWN	Farmer Water Net	SCCRP	Support to the Commercialization of Cambodian Rice Project
FWUC	Farmer Water User Community	TA-TAG	Technical Assistance for Tripartite Agreement
GRET	<i>Professionals for fair development</i>	WASP	Water and Agriculture Sector Project
IBG	Input Buying Group		

UNITS AND MEASURES

ha	Hectare
kg	Kilogram
KHR	Cambodian Riel (Approximately 4,000 KHR for 1 USD).
t	Ton (metric ton)
USD	United States Dollars

¹ www.gret.org

1. OVERVIEW: SUMMARY OF THE EXPERIENCE OF FERTILIZER BUYING GROUP IN STUNG CHINIT FWUC

Stung Chinit Farmer Water User Community (FWUC) is located in Chhoeateal village, Kampong Thmor commune, Santuk district, Kampong Thom province and is managing the Stung Chinit irrigation scheme. Stung Chinit FWUC has organized a “Fertilizer Buying Group” (IBG) with the support of the Irrigation Service Center (ISC) marketing team, Farmer Water Net (FWN) and Agro-economist of GRET. The activity was implemented on June 2016 and January 2017.

The main objective of the IBG is to buy inputs with lower price than what farmers usually expense and to get the correct quantity and good quality for all members of IBG.

IBG in Stung Chinit FWUC had 174 members who bought Japanese Fertilizers. 27,600 kg (for an amount of 16,380.50 USD) were bought through IBG from one supplier, Bayon Heritage Holding Group Co., Ltd. (BHG).

Based on the economic analysis in 2016, IBG members were supplied with fertilizers at a price in average 6.5% lower than local farmers outside of the IBG, and the FWUC and FWN could also get incomes from the supplier of fertilizers (0.5 USD per 50 kg for FWUC and 0.5 USD per 50 kg for FWN).

IBG members have expressed their satisfaction with this activity of FWUC: the IBG in Stung Chinit FWUC has cooperated with BHG and has implemented its activities smoothly thanks to a good participation from FWUC committee members, village chief/village representatives, and members. The good collaboration between members and village chief/village representatives and FWUC committee members and supplier was also a key factor of success.

Yet, despite the success of this pilot experience, Stung Chinit FWUC committee members do not feel ready to replicate the operation without support (from FWN and ISC) in the following year. They believe they will need additional support and backstopping for one or two years more.

2. THE ORIGIN OF THE ACTION AND THE STAKEHOLDERS INVOLVED

2.1. THE ORIGIN OF THE ACTION

SCCRP is funded by AFD. Its purpose is to contribute to support the implementation of the National Strategy of Promotion of Paddy Production and Rice Exports approved by the Council of Ministers in July 2010, with an objective of maximization of the added value and of the share of this added value reaching producers as a part of the overall goal of rural poverty alleviation.

The SCCRP project has signed a MoU with Farmer Water Net to support (with the help of ISC and of GRET's TA-TAG) FWUCs willing to engage in paddy commercialization and input supply. The initiative of setting an Input Buying Group within Stung Chinit FWUC was part of this partnership.

2.2. MAIN STAKEHOLDERS INVOLVED

STUNG CHINIT FARMER WATER USER COMMUNITY

Stung Chinit FWUC was registered at MOWRAM in 2006. It manages Stung Chinit irrigation scheme, which command area covers 25 villages in 3 communes in Santuk district, Kampong Thom province. This irrigation system covers 2,802.45 ha in 58 blocs. There are 9,005 rice fields and 2,878 farmer households. Stung Chinit FWUC governing bodies include 4 committee members and 25 village representatives, and the FWUC employs 4 staff.

THE IRRIGATION SERVICE CENTER (ISC)

The Irrigation Service Center (ISC) is a Cambodian organization specialized in the provision of services, capacity building and support to Farmer Water User Communities and projects involved in the irrigation sector. As part of SCCRP project, ISC implements two types of activities: 1) Direct support to FWN committee member and secretary and 2) support services to FWUCs engaged in PSG model and IBG model.

FARMER WATER NET (FWN)

Farmer Water Net (FWN) is a representative Federation of FWUCs in Cambodia. It is registered with the Ministry of Interior since 2011. At present, FWN counts 26 members (26 FWUCs, gathering 34,958 households, with a total rice land surface of 41,980 ha in 11 provinces).

TECHNICAL ASSISTANCE FOR TRIPARTITE AGREEMENT (TA-TAG)

TA-TAG is the team of GRET that has a role to support the implementation of a tripartite agreement (MOWRAM, ISC, and FWN) as part of another project supported by AFD, named WASP project. GRET is a French NGO, established since 1976, fighting poverty and inequalities in the field and in policies. Its professionals intervene in a broad range of subjects to provide lasting, innovative solutions for fair development. In Cambodia, GRET has implemented activities since more than 20 years, in particular in the fields of agriculture and rural development.

BAYON HERITAGE HOLDING GROUP CO., LTD. (THE SUPPLIER)

Bayon Heritage Holding Group Co., Ltd. (BHG) is a private commercial entity located in Phnom Penh, Cambodia. BHG gathers four companies, two of which are involved in fertilizers import and commercialization. The activities of the Group also encompass other activities in the agricultural sector, notably export of rice, cassava and rubber.

3. THE IMPLEMENTATION PROCESS

The main steps of the implementation of pilot “Fertilizer Buying Group” operation in Stung Chinit FWUC are presented below:

STEP 1: SUPPLIER FINDING

- Farmer Water Net has got involved in finding fertilizer suppliers. Before the implementation of this specific support to the IBG of Stung Chinit FWUC, FWN had already developed a relation with Bayon Heritage and had already drafted MOU for Japanese fertilizer supply, but it was not yet signed at that moment.

STEP 2: CREATION OF INPUT BUYING GROUP (IBG)

- Bayon Company and FWUC organized meeting with FWUC members in order to present the advantages of using Japanese fertilizers;
- FWUC with the supports of ISC started to identify interested farmers for Japanese fertilizer buying group, through meetings and individual contacts. Information regarding interested farmers was compiled by using a template of farmers’ order list developed by ISC/GRET.

STEP 3: PREPARATION BEFORE INPUTS BUYING

- ISC assisted FWUC concerning data entry into Excel file and data management IBG;
- ISC ordered Japanese fertilizers to Bayon Company, based on compiled farmers’ orders.

STEP 4: OPERATION DURING INPUT BUYING

- Bayon Company delivered Japanese fertilizers with the invoice.
- For cash payment (Farmers can pay directly to Bayon Company. Then, Bayon Company gives receipt to FWUC) or (Farmers can pay directly to FWUC. Then, FWUC takes note on documents and calls Bayon Company to take money).
- For purchase of Japanese fertilizer at credit, a format of register (Table) has been developed: “List of farmers bought Japanese fertilizers in credit”, in which are recorded: Name of farmers, Volumes bought, Unit price, Total price.. After this table is filled, each farmer acknowledges the volume of fertilizer he/she received and the corresponding price by putting his/her thumbprint on the register. Then, a contract is signed on the basis of these records between Bayon Company and Stung Chinit FWUC.

STEP 5: OPERATION AFTER INPUTS BUYING

- FWUC and ISC organized meeting with Bayon Company in order to verify total quantity;
- Bayon Company reminded FWUC about the schedule for payment;
- FWUC reminded members about the schedule for payment;
- FWUC collected money and FWUC called Bayon Company to take money;
- Finally, the meeting on IBG with members has been organized in order to present the results including the lesson learnt from IBG activity and to prepare the next phase of IBG implementation.

4. OPERATIONAL RESULTS

After Bayon Company and FWN have drafted MOU on Japanese fertilizer supplying, Bayon Company and Stung Chinit FWUC organized meetings with FWUC members at village level in order to present the advantages of using Japanese fertilizers. Then, FWUC with the supports of ISC started to identify interested farmers for Japanese fertilizer buying group. As result, 174 farmers bought 27,600 kg of Bayon Heritage's Fertilizers (for a value of 16,380.50 USD) through IBG. Only a part of FWUC members took part in the IBG because of the following reasons:

- Some FWUC members already bought fertilizers before this operation;
- Some FWUC members didn't stay home during making purchase planning;
- Some FWUC members didn't trust Japanese fertilizer of Bayon Company;
- Some FWUC members didn't trust IBG because it was the first time in Stung Chinit FWUC;
- Some FWUC members need other fertilizers that are different from Japanese fertilizers;
- Some FWUC members think that Japanese fertilizers are expensive if they compare with other fertilizers.

Based on the economic analysis for the implementation in 2016, the price paid for fertilizer by IBG members was in average 6.5% lower than price paid by other farmers (in the same locations) outside of the IBG. For 174 members of IBG, this has saved 992 USD on production costs, for the 27.6 tons bought.

The interest for FWUC to open its services is such as FWUC has bargaining power, it improves the support of members, it builds confidence and good cooperation with members and supplier, and it can generate incomes. Moreover, FWUC could get a gross incomes of 276 USD (0.50 USD per 50 kg) from the company. Then, FWUC expensed 50% of gross incomes (based on principles decided internally by FWUC) for labor costs of persons in charge of implementation, such as village representatives, village chief, and FWUC committee members. This new services could balance FWUC cost and enable the FWUC a better functioning because FWUC expenses for this operation are 50% of gross incomes. Following the principles decided internally by FWUC, the profit generated from IBG activity is used for general FWUC activities.

Furthermore, FWN could also get an income of 276 USD (0.50 USD per 50 kg) from the company.

IBG in Stung Chinit FWUC that cooperated with BHG Company was run smoothly thanks to the good participation from FWUC committee members, village chief/village representatives, and members. There was good collaboration between members and village chief/village representatives and FWUC committee members and supplier. Finally, IBG members were satisfied with this activity of FWUC and acknowledged the benefit they got from the IBG.

Yet, even with this successful pilot experience, Stung Chinit FWUC committee members do not feel ready to replicate the operation without support (from FWN and ISC) in the following year. They believe they will need additional support and backstopping for one or two years more.



5. ECONOMIC ANALYSIS

The economic analysis for IBG activity of FWUC was focused on FWUC, members of IBG, and ISC/FWN.

5.1. ANALYSIS OF ECONOMIC RESULTS AT FWUC LEVEL

Stung Chinit FWUC got gross incomes of 276 USD from IBG activity. On the other hand, expenditures made for this fertilizer buying activities reached a total of 138 USD (i.e. 50% of gross incomes FWUC were provided to village representatives/village chief/committee members for labor costs). So, the profit of Stung Chinit FWUC from IBG activity is 138 USD.

Details are provided in the Table 1 below.

Table 1: Incomes and expenses of Fertilizer Buying Group operation at FWUC level in Stung Chinit

I.	Incomes of FWUC from Fertilizer Buying Group	276.00 \$
1.1.	Grain Fertilizers (433 bags x 2,000 Riels)	216.50 \$
1.2.	Powder Fertilizers (7 bags x 2,000 Riels)	3.50 \$
1.3.	Urea Fertilizers (224 bags x 1,000 Riels)	56.00 \$
II.	Expenses of FWUC for Fertilizer Buying Group	138.00 \$
2.1.	Village Representatives-Grain Fertilizers (1,000 Riels/bag)	108.25 \$
2.2.	Village Representatives-Powder Fertilizers (1,000 Riels/bag)	1.75 \$
2.3.	Village Representatives-Urea Fertilizers (500 Riels/bag)	28.00 \$
III.	Profits of FWUC from Fertilizer Buying Group	138.00 \$

Note: For IBG of Stung Chinit FWUC, the supplier provides the commission to FWUC and FWN as follows:

- FWUC can get 0.50 USD per bag 50 kg (for grain fertilizer or powder fertilizer) and 0.25 USD per bag 25 kg (for urea fertilizer).
- FWN can get 0.50 USD per bag 50 kg (for grain fertilizer or powder fertilizer) and 0.25 USD per bag 25 kg (for urea fertilizer).

5.2. ANALYSIS OF ECONOMIC RESULTS FOR IBG MEMBERS

If farmers buy the same quantity (27,600 kg) of fertilizers individually to local suppliers, it is estimated that they would have spent 17,372.50 USD. Whereas in the Input Buying Group, they had to spend only 16,380.50 USD. Thereof, they saved 992 USD (approximately -144 Riels/kg) by buying collectively through the IBG.

Details are provided in Table 2 below.

Table 2: Price obtained by farmers in IBG and comparison for price that they would have obtained out of IBG

I.	Amount expended by IBG members for their buying (27,600 kg)	16,380.50 \$
1.1.	Grain Fertilizers (433 bags x 117,000 Riels)	12,665.25 \$
1.2.	Powder Fertilizers (7 bags x 107,000 Riels)	187.25 \$
1.3.	Urea Fertilizers (224 bags x 63,000 Riels)	3,528.00 \$
II.	Amount farmers would have expended for the same quantity (27,600 kg) outside IBG (based on unit price offered by supplier locally on the same period)	17,372.50 \$
2.1.	Grain Fertilizers (433 bags x 125,000 Riels)	13,531.25 \$
2.2.	Powder Fertilizers (7 bags x 115,000 Riels)	201.25 \$
2.3.	Urea Fertilizers (224 bags x 65,000 Riels)	3,640.00 \$
III.	Profits of IBG members on fertilizer buying (27,600 kg)	992.00 \$

5.3. ECONOMIC ANALYSIS FOR ISC/FWN

ISC used 3 staff (i.e. one marketing specialist, one marketing officer, and one field facilitator) in order to support Stung Chinit FWUC on IBG activity on June 2016 and January 2017. The total man-days spent for this activity were 24 man-days. The operation costs of ISC for supporting IBG in Stung Chinit FWUC are 782 USD for total man-days. The operation costs of ISC were covered by the subsidy of the project.

6. VIABILITY: STRENGTH, WEAKNESSES AND FORESEEN FUTURE OF THE INITIATIVE

6.1. ANALYSIS OF BREAKEVEN POINT IN STUNG CHINIT FWUC

For making the analysis of breakeven point of IBG in Stung Chinit FWUC, we need to know the total fixed costs, variable costs per ton, incomes per ton, and total quantity of fertilizers bought.

- Total fixed costs = 0 USD (i.e. Company covered costs related to meeting at village level)²
- Variable costs per ton = 5 USD
- Incomes FWUC per ton = 10 USD
- Quantity of fertilizers bought = 27.6 tons

As there are no fixed costs to be covered by the FWUC's IBG, and as seen on the Table 3 below, the breakeven point is 0 ton. If it can have quantity of fertilizers bought, the FWUC can get profits.

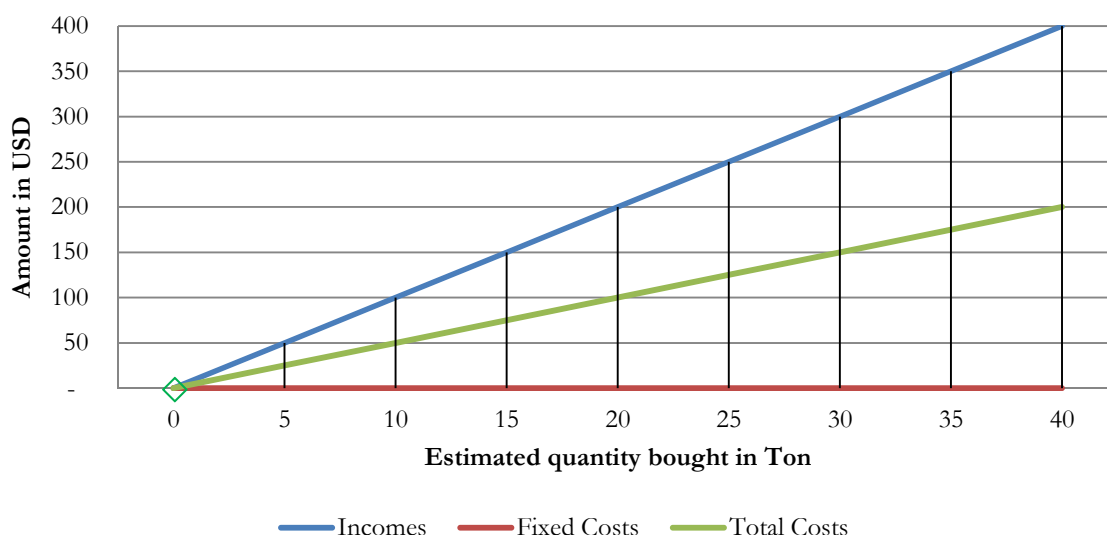
Table 3: Detail analysis of breakeven point for IBG of Stung Chinit FWUC

Volumes Bought (tons)	FWUC Incomes	Variable Costs	Fixed Costs	Total Costs	Operating Profit	
0 t	0 \$	0 \$	0 \$	0 \$	0 \$	→ Breakeven
5 t	50 \$	25 \$	0 \$	25 \$	25 \$	
10 t	100 \$	50 \$	0 \$	50 \$	50 \$	
15 t	150 \$	75 \$	0 \$	75 \$	75 \$	
20 t	200 \$	100 \$	0 \$	100 \$	100 \$	
25 t	250 \$	125 \$	0 \$	125 \$	125 \$	
27.6 t	276 \$	138 \$	0 \$	138 \$	138 \$	→ Actual figures for Year 2016
30 t	300 \$	150 \$	0 \$	150 \$	150 \$	
35 t	350 \$	175 \$	0 \$	175 \$	175 \$	
40 t	400 \$	200 \$	0 \$	200 \$	200 \$	

According to the condition of Bayon Company, minimum 2 tons of fertilizers (it is equal to one small truck) is delivered by the company. At Stung Chinit FWUC, one farmer needs minimum 100 kg of Japanese fertilizers (including Urea fertilizer 2 bags = 50 kg and Grain fertilizer 1 bag = 50 kg). So, they need to engage at least 20 farmers to reach a demand of about 2 tons of fertilizers and thereof be able to run the IBG activity.

The operation costs of ISC for this IBG activity were 782 USD including total fixed costs (184 USD, it came from all costs for supporting the IBG activity in Step 1, Step 2, Step 3, and Step 5) and variable costs (598 USD, it came from all costs for supporting the IBG activity in Step 4 "Operation during input buying"). So, variable costs per ton are 21.67 USD. In this case, Stung Chinit FWUC cannot cover the costs of ISC related to IBG activity.

² Costs of ISC support have not been integrated here, as it is considered that in the long run the FWUC could manage the activity by itself.

Figure 1: Graph representation of breakeven point

6.2. STRENGTH AND WEAKNESSES

After finishing the IBG activity in Stung Chinit FWUC, FWN and ISC have reviewed the implementation and have noted the main strengths and weaknesses listed below:

STRONG POINTS

- Members have clear planning for fertilizer buying;
- All parties involved have respected the discussed method and agreed principles;
- All parties involved had a strong commitment for this activity.

WEAK POINTS

- FWUC's capacities for data management are limited;
- Late payment of few members (Now fully settled, without interest applied for late payment).

7. REPLICABILITY AND CONDITIONS FOR REPLICABILITY WITHOUT SCCRП PROJECT SUPPORT

7.1. CAPACITIES AND LIMITS OF STUNG CHINIT FWUC TO REPLICATE THE IMPLEMENTATION OF IBG

ISC has developed tools to ease the management of Input Buying Groups. Yet, even if Stung Chinit FWUC already had this first experience of fertilizer buying group, it is assessed that it is not yet fully capable to operate fertilizer buying group activity alone for the next rice production seasons. Details of what FWUC is now able to implement, and what still requires external support are provided below:

WHAT STUNG CHINIT FWUC CAN DO ALONE IS AS FOLLOWS:

- Organize meeting at village level in order to find interested farmers on IBG;
- Make individual planning with interested farmers on IBG;
- Communicate with the supplier of fertilizers;
- Collect fertilizer payment from IBG members;
- Transfer fertilizer payment to the supplier of fertilizers.

WHAT STUNG CHINIT FWUC CANNOT DO ALONE IS AS FOLLOWS:

- Data management of IBG such as make data entry of individual planning by using template in Excel file; update planning, and make data entry of fertilizer payment of members.

PROPOSED RESOLUTION FOR WHAT STUNG CHINIT FWUC CANNOT DO ALONE IS AS FOLLOWS:

- FWUC could be able to outsource some services (pay for the implementation of some tasks by a service provider);
- FWUC could possibly hire staff to undertake the activity.

The feasibility of these two options would still have to be assessed in details.

7.2. TENTATIVE REPLICATION OF THE ACTIVITY IN 2017

Based on the results of the implementation of the Fertilizer Buying Group of Stung Chinit FWUC were very positive about the amount they could save on fertilizer purchase thanks to IBG. The activity was replicated in 2017 and was successfully implemented again showing that the model remains valid. 219 farmers have joined this activity for rice production in wet season 2017. They bought 49,975 kg of fertilizers (for an amount of 28,195.50 USD) through IBG of Stung Chinit FWUC. For these volumes, it is estimated that members of IBG could save 3,272 USD on their fertilizer purchases, FWUC could get a gross incomes of 499.75 USD and FWN could also get an income of 499.75 USD.

In 2017, the IBG of Stung Chinit FWUC has partnered with the same supplier of fertilizers as in 2016, but this supplier had further decreased its price by 1 USD/50 kg for each kind of fertilizer. Thereof, the amount saved by IBG members in 2017 was even higher than in the previous year (a reduction of their spending for fertilizer of 12.83% in average), and the FWUC and FWN could get incomes in the same condition as in 2016 (0.50 USD per 50 kg to FWUC and 0.50 USD per 50 kg to FWN).

