Chapter 11 Development of economic sustainability of groups

11.1 Objectives and procedural outline

In Chapter 8, the methods for supporting the "organizational strengthening" of groups were explained for the purpose of the groups achieving sustainable self-management. In order to guarantee the economic sustainability of the group activities, the groups need to establish a process of "re-circulation of funds" whereby the income obtained from the production and sale of their farming/forestry products, handicrafts and services is reinvested into their activities. In this Chapter, we explain the support that a project can give to the groups' "economic self-management" (Category C) by following the curriculum model for group strengthening (Chapter 8, Figure 8-1). This type of support should generally begin in the second stage when the groups have developed their group activities to a certain level. The support for "economic self-management" should be focused on the following 4 themes:

- Managing the farming process and bookkeeping;
- Sales of farm products and services;
- Reinvestment of the group's own funds;
- Obtaining outside funds.

11.2 Management of the production process and accounting

11.2.1 Significance of the management of the production process and accounting

The initial support given to a group to help it achieve economic independence, is to help the group establish the habit of managing and recording its farming process, its income and expenses, and to share this information with all its members. The habit of "keeping a record" is an especially important and indispensable technique for the group to clarify the process of its activities and for sharing information among the group members. This information also becomes the basic data for reflecting on the previous period and for making production goals when preparing the activity plan for the next period (see Chapter 12). Such records can also be important proof of the group's trustworthiness when applying for outside funds from an organization that provides funding (see section 11.5).

There are three record-keeping habits that the members should master, namely, managing the "record of members' participation in group activities", managing the "record of the farming process" and managing the "bookkeeping record". (Regarding the "record of members' participation in group activities", this was mentioned in Chapter 8 (category B-1) as the "activity attendance list", but here it

is reexamined from the perspective of economic self-management.) The following Table 11-1 explains the significance and benefits of these 3 elements (habits).

Elements	Significance and advantage
1. Management of	• When the crops harvested from the group farmland, or the income obtained from
work record in	the sale of goods and services, are to be distributed among members, it is
group activities	important that the amount received by each member is proportional to that
0 1	member's degree of participation in the group activity. In this way the
	distribution will be fair and prevent disagreements within the group (see section
	11.4). For this reason, a record is needed of members' participation (present or
	absent) in group activities.
	• This is the most simple of these 3 records. Therefore, it would be best to
	introduce it to the group first, so that the group members can get used to managing
	their activities by the keeping of records.
2. Management of	• The purpose for recording the farming process is to show the relationship
production	between investment and harvest with concrete numbers (for example, "X"
process	number of tomato plants were planted in an "X" m ² plot, "X" amount of fertilizer
1	and insect repellent were applied, and "X" kg. of tomatoes were harvested in "X"
	number of days"). In this way, the members can see the advantages of the
	environment-friendly farming and agroforestry techniques that were introduced
	(they can obtain a greater harvest using a smaller area of land).
	• Recording the farming procedure also provides basic information that will help in
	achieving the farm production goal as planned and thus the group's economic
	sustainability. The farming record helps members in estimating how much they
	will need to invest in the next activity in order to achieve the harvest they aim for.
	• Furthermore, the members can convert the concrete figures of the investment
	made into the production cost. A comparison of the production record with the
	cash book will show the group's true balance of profits and expenses (see section
	11.4).
	• In conjuncture with the future sale of goods and services, the farming record can
	serve as proof for the certification of organic farm products or ecolabels (see
	section 11.3).
3. Management of	• The objective of the management of accounting is to obtain the ability to correctly
accounting	write down the income and expenses in a record book and to adequately manage
	the income a group receives from the services and organic products it offers.
	• Writing down (recording) the group's income and expenses in a manner that
	everyone can understand helps to strengthen the transparent management of the
	fund by the group. Furthermore, by all the group members learning this ability
	one can avoid a "monopoly" of the funds by a few members, and can insure that
	the group's funds are managed in a fair manner.

 Table 11-1
 Three elements of management of production process and accounting

The order for introducing these 3 elements (record-keeping habits) to the groups can be in the order of their activities. For example: "managing the participation of members in group activities" can be introduced to a group when it beings its group activities, "managing the farming process" can be introduced when the group begins to plant crops, and the "managing bookkeeping" can be started with the sale of their agricultural products. However, the project staff should make the final decision about delaying or changing the order of introducing these records to a group, depending on their evaluation of the group's level of maturity.

11.2.2 Supporting the management of the production process and accounting

1) Managing the group activity participation record

(1) Method of support

En la fase inicial cuando las actividades grupales todavía son incipientes, se puede hacer un llamado por el equipo del proyecto a cada miembro al comienzo o al final de las actividades del día para confirmar su presencia con la firma de cada uno en el registro. Es un método con menos errores y con mayor transparencia. Próximamente, se enseña poco a poco a los miembros a hacer el registro por sí mismos. La forma del registro no está establecida, se puede anotar el día de actividad, los participantes y las horas de entrada y salida (Ej. de 8:00 a 13:30) en un cuaderno y designar a una persona del grupo para guardar el registro.

2) Manejo del proceso de producción

(1) Forma de apoyar

The management of production process is done by writing down precisely the complete process of production in an established form. It is assumed that group members will not have had the experience of keeping records, therefore the project personnel has to help the group make a record each time they do an activity until they become accustomed to keeping the record by themselves (a workshop on the records can be held with the members to introduce the methodology of recording). Once the group reaches such a stage, the project personnel only need to monitor the record.

Once you have introduced the record keeping habit, the monthly meetings can be used for monitoring the groups to see if they are correctly keeping the farming record or if there is some area of weakness that needs additional assistance.

(2) Example of production record

A sample form of a farming record is presented below (Figure 11-1). The format can be modified to meet the different situations of each project.

Some crops are not worth recording, for example, the production of a small quantity of cilantro for home consumption. However, this should not be an excuse for not recording other crops when one considers the multiple advantages mentioned above for making a farming record. (There are obviously a greater number of crops for which it is advantageous to keep a farming record.)

Format of Record

Example of how to fill out the form

Nombre de Grupo :			Nombre de Grupo : Grupo Agroforestal Las Conchas						
Producto :				Producto : Pepino					
Número de la Parcela :			Número de la Parcela : B						
Camilla / Diantéra Camilad					Semilla / Plantón Cantidad: 2 onzas				
Semilla / Plantón Cantidad: Medio de Adquisición:				Medio de Adquisi	ción: <i>Comprado</i>	con B/.3.00	por el grupo		
					Siembra o Traspla	nte en parcela (n	o significa siem	ibra en semille	ro o vivero)
Siembra o Trasplar	nte en parcela (no	significa siem	bra en semiller	o o vivero)	Fecha: 31/Feb/2	2009 Cantidad	: 2 onzas		
Fecha:	Cantidad				Área sembrada (1	n²): <i>20m x 30</i> 1	m (= 600 m²)		
Área sembrada (n	n ²) :				Fecha de cosecha	Cantidad de Cosecha total	Cantidad de autoconsumo		Ingreso
	Cantidad de	Cantidad de	Cantidad de	-	21/mar/2009	50 lb.	40 lb.	10 lb.	B/. 3.00
Fecha de cosecha	Cosecha total	autoconsumo		Ingreso	05/abril/2009	65 lb.	20 Ib.	45 lb.	B/. 13.50
					06/abril/2009	25 lb.	25 lb.	0	0
					16/abril/2009	15 lb.	0	15 lb.	B/. 6.00
					25/abril/2009	15 lb.	15 lb.	0	0
					Total (Apuntar al final de la producción)	170 lb.	100 lb.	70 lb.	B/. 22.50
Total (Apuntar al final de la producción) Otros Insumos Apl	icados (Abono, Q	Juímico, etc):			Otros Insumos Ap Abono orgán Hormitox :	licados (Abono, G nico (bokashi): 15 gramos (15, nalo: 50 matas	3 sacos (05/		1
Comentarios:				Comentarios: La cosecha fue baja debido al ataque de insectos. El precio fue más alto de lo que esperábamos.					
Fecha de Término de Producción u Obra:				Fecha de Término 22/abril/20	de Producción u 09 se terminó d		a de la parc	ela.	

Figure 11-1 Production record

3) Management of accounting

(1) Method of support

Groups may get accustomed to the accounting record in the following order (Table 11-2), using such opportunities as regular extension activities and monthly meetings to promote the habit.

Activities	Time	Contents of the project's support			
Assigning a person	When forming the	When a group is being formed, you can advise them to select one			
to be in charge of	group	or various persons to be the treasurer, by group consensus (see			
bookkeeping		Chapter 6).			
(treasurer)					
Managing money	When the group	The groups are advised that the treasurer should keep the money			
	receives its first	in a safe location, for example in his/her house.			
	income	When the group fund grows and its management becomes more			
		complicated, the group should open an account in the name of			
		the group (or sometimes in the name of a representative of the			
		group) in a financial institution, such as a bank, that is closest to			
		them. Check beforehand the documents needed to open an			
		account and assist the group in filling them out. Project			
		personnel should accompany the group when they open their			
		account to help them in the procedure.			
Managing the	Soon after	The use of the cashbook is introduced in the group activities so			
cashbook	obtaining the first	that the members can learn to correctly record income and			
	income	expense. For those groups that do not have the experience of			
		making entries in a cashbook, a workshop is held to give them			
		initial assistance in bookkeeping. (Regarding the method for			
		holding workshops, see the list of manuals in the Annex.)			
		In the monthly meetings, the groups are monitored to see if the			
		books are being kept correctly. If any errors are found, the			
		assistance to the group is repeated.			
Periodic	In the monthly	The group's income and expenses are reported in the monthly			
bookkeeping report	meetings	meetings, based on the records made in the cashbook. The			
		treasurer should be advised (or instructed) not to only make an			
		oral report, but to also circulate the cashbook among all those			
		present so that everyone can confirm that the bookkeeping was			
		done correctly and with transparency.			

 Table 11-2
 Order of introducing the management of accounting

(2) Example of a bookkeeping record and its entries

An example of a sheet from a bookkeeping record with the corresponding entries is shown below. The entry categories used in this record would mostly likely be suitable for the bookkeeping needs of farmer groups of any project or activity. Nonetheless, a bookkeeping record that better fits the needs of each project or activity could be designed and printed, or a cashbook could be purchased for this purpose as well.

Fecha	Artículo	Cant.	Ingreso	Gasto	Crédito	Saldo	Comentario (Precio unitario)
				. ×			
02-05-08	Tomate	5016s	25.00		2	25.00	BO.50 / 165
07-05-08	Pepino	10016s	25.00			50.00	Blo.25 / 1.65
08-05-08	Semillo de Tomate	20nz	8	2.00		48.00	B1.00 1 onz
12-05-08	Tomate	101bs			5.00	48.00	BO50/165 Sr Joaquin
16-05-08	Crédito de So Jos	in	5.00			53.00	br. Joaquino Pagado
23-05-08	Dexación para Esco	erla		20.00		33.00	1 0
30-05-08	toldo de mes mayo			5 4 2		33.00	Beenion Monsual
	0			G	а. 		

Figure 11-2 Example of how to fill out in cashbook

11.3 Sales of products and services

11.3.1 Basic concepts of marketing

1) Importance of production planning and understanding of risks

Marketing activity is not a simply act of "selling products and services", rather it is a process that involves using "appropriate farming techniques", making a "planned farm production (that fulfills the buyer's demand, satisfies customers and shows product differentiation)", and the "transportation of merchandise". Therefore, when setting out to develop markets and products, one always needs to keep in mind the perspective of the market from the first step of "planning the farm production". Furthermore, since the buyers of farm products will want a regular supply of a certain quantity and quality (foreseeable sales), the key to marketing is in achieving a planned production. (Regarding "appropriate farming techniques", the methods are explained in Chapter 10, and "achieving a planned farm production" is explained in Chapters 7 and 10.)

In the end, it will be the group members themselves who have to bear the risk of the marketing activities. Therefore, when planning such activities, it is important to confirm that the members understand clearly the risks involved (the possibility of poor harvests, low market prices, etc.) and to emphasize the need for group consensus in undertaking the activities.

2) Planning according to group capacity and farming period; marketing strategy

If marketing activities are to be conducted in areas that are outside the main agricultural or forestry production areas, also if group members have little experience in working as a group, it would be recommendable to develop the marketing activities slowly. A group should do marketing activities parallel to the strengthening of its group organization and the development of its group activities. An important element in strengthening the sustainability of the group activities is to combine the "short-term activities that create immediate income" with the "long-term activities for watershed conservation". The groups are advised to include both these activities when making their Farmland Use Plan and the Annual Activity Plan (see Chapters 7 and 12).

(1) Short-term Activities

These are focused on the production and sale of annual crops (with a short growing period) in order to keep up group members' incentive and to provide them an opportunity to learn about marketing.

(2) Long-term Activities

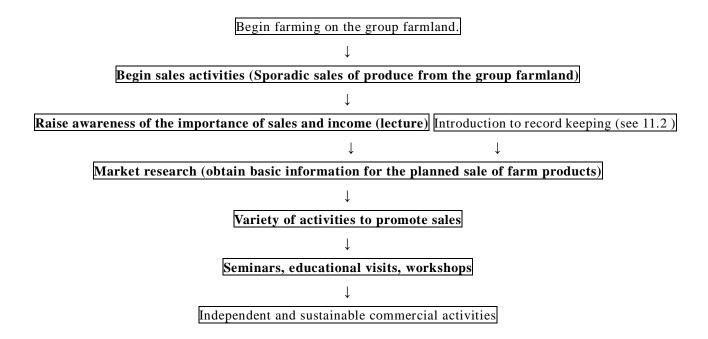
These are agroforestry techniques that include environment-friendly forest products (achiote, fruit trees, black pepper, etc.). The results of long-term activities take time to appear and the inhabitants do not have much incentive to practice them. Therefore, they are combined with the above short-term activities to maintain the interest of the group members.

If the project is working with small-scale farmers in an area that does not have good conditions for growing crops, it would be advisable to encourage the farmers to produce a diversity of organic crops at small scale through group activities, and to distribute those crops in and around their neighborhood. This would be a better strategy (especially at the beginning of the activities) than promoting a monoculture production aimed at exporting from such an area.

11.3.2 Supporting the sales of products and services

1) Order of support

After a group begins to produce crops on its group farmland, the project can support development of market and product in the following way. (See Table 8-1 also)



The purpose of this support is for the group to acquire the ability to make planned and sustainable sales of its products and services. Table 8-1 and the flowchart above show the basic concepts and consecutive order of the project's support. However, there are risks involved in farming, and also "planned crop production" is a new concept for the groups and one should anticipate that not all the groups will be able to immediately adopt such activities. Therefore, it should be understood that the above-mentioned process for supporting market development will need to be repeated, and the seminars and educational visits should also be repeated, as needed.

2) Market research

Market research is a means to obtain information and results that can be used to improve coordination from farm production to distribution and sales.

Before a group begins promoting the sale of their products and services, a market research can be conducted to discover the physical, social and economic conditions of the area, the distribution chains, the location of potential consumers, market segmentation and unmet demand. The chart below indicates some of the main topics to cover in a market research for the groups. Group members often do not have experience in market research, therefore the project personnel can do this directly or contract a third party to do it. Whatever the method used, the group members should, as much as possible, go along on the market research so that they can directly learn the real situation. Also, the results of the market research should always be shared with the group.

Research Topics	Research Method, Content, and Products
Previous experiences	Consists of reviewing available documents on the subject and conducting field interviews.
	The purpose is to obtain information on outstanding past experiences, or
	observe current experiences, in selling products or services in areas with
	environmental and social conditions that are similar to the groups.
	As a result, one can learn some lessons that could be applied in the project.
Movement of agricultural products	Consists of reviewing available documents such as statistics and interviewing agribusinesses.
in large, national markets	The purpose is to understand the movement of farm produce in large markets, both in the domestic market and the export market.
	As a result, one can analyze the possibilities of developing a niche for an unmet demand in the markets.
Movement of	Consists of visiting small businesses, directly interviewing the merchants and
agricultural products	observing the treatment and condition of the merchandise.
in small markets close	The purpose is to learn about the farm produce being sold, their prices, and the
to the project	requirements for establishing a sales agreement (delivery date, quantity and
	quality of the product, etc.) with a small merchant.
	As a result, one can analyze the possibility of making an agreement to sell small amounts of produce.
Situation of	Consists of interviews and field studies.
transportation between	The purpose is to understand the transportation method to use from the point of
the farms and the	origin to the market, the time and cost required, etc. Potential sites for setting
market	up the groups' own pilot produce stand in the future can also be studied.
	As a result, one can obtain basic information for planning the transportation
	and sale of the farm produce.
Groups' intentions for	Consists of interviewing and discussing with the group members.
developing a market	The purpose is to clarify what experiences and knowledge the groups have in
	selling farm produce and services and what their interests and hopes are for the
	future.
	As a result, one can obtain the basic data for making a sales program that is in
	line with a planned farm production.

Table 11-3 Essntial topics for market research

3) Supporting sales promotion

The type of support a project can give to promote the sale of a group's products would include supporting direct sales and improving the commercial value of their products.

(1) Supporting sales

When a group first begins to sell its farm products and services, sales will at first be irregular. But eventually the members will learn how to manage their sales and income (see sections 11.2, 11.4). Step by step, the project should give the assistance needed for them to establish a system of planned production (see Chapter 10).

In the same way as market development, when beginning sales activities, the project personnel should accompany the group giving guidance to the members so that they can gradually learn to do the sales activities on their own. In order to give incentive to the group it may be necessary to use the project vehicle to carry the produce for sale. But the members should gradually be made aware that the cost of transportation (see 11.4 below) so that in the end the group can cover transportation costs on its own. During the period of the project, the farmer groups could use the project's vehicles to transport their produce, however, it would be better for them not to rely on this method from the viewpoint of encouraging the sustainability of group activities.

It is assumed that the initial buyers of the groups' products would be the small merchants and consumers living in the vicinity of the community. As the group develops its activities further, they can extend their sales to public markets and supermarkets. It would be recommendable to have various buyers.

Potential Market	Advantages	Disadvantages	Potential crops
Consumers in local communities	• Possibility of periodic sale of small quantities of greater variety	Sale of small quantitiesEasy to developBuilds trust relationships	• Basically crops and condiments used in daily cooking
Small businesses	 Better prices than public markets If demand can be satisfied (quality and quantity), there is greater possibility of continued demand 	 Small amount of sales Depends on the needs of the merchant 	• Crops wanted by the merchant
Public markets	• A greater variety of products can be sold	 Prices fall with competition Larger quantities are needed to make a profit 	• All crops
Supermarkets	 Better prices than public markets If demand can be satisfied (quality and quantity), there is greater possibility of continued demand 	 Hard to enter Limited to specific products Have to satisfy the demand (quality and quantity) 	• Crops wanted by the supermarket
Companies that buy agricultural and forest products	• Do not have to develop a sales route	 Limited to specific crops Have to comply with the demand (quality and quantity) 	 Agricultural and forest products wanted by companies (coffee, cacao, <i>achiote</i>, black pepper, etc.)

 Table 11-4
 Potential clients (markets)

If the project is working with several groups, you can explain to the group members the advantages of reducing transportation and sales cost by coordinating the sales activities among all the groups. Another alternative to be considered would be setting up a pilot produce stand where group members could directly sell their products by themselves.

	Advantages	Disadvantages	Potential crops
Pilot stand	 Movement of small quantities, but of greater variety Can receive support from IMA (Agricultural Marketing Institute) 	 Have to be responsible to obtain and sell products Have to be careful in setting the prices Location is important 	 Fruits, vegetables Should consider buying products from others to offer more variety to the public

(2) Planning and participating in fairs

Participating in local fairs to sell the farm produce is also an effective method for promoting sales. The type of support a project could give in this aspect would be to plan a fair, collect information about fairs to be held, call the groups to participate in a fair, negotiate with the sponsor of a fair to secure a booth (stand), prepare and set up a booth/stand, and transport the group members and the produce on the day of the fair.

Furthermore, public relations activities, such as putting up the project banner or poster, handing out leaflets, and exhibiting photos of project activities, are also ways to support the sale of the groups' products.

(3) Improving the commercial value of farm products

In order to sell the farm produce at a high price, it is essential to grow crops that are safe and of high quality (see Chapter 10). But on can be creative as well, by giving aggregate value to the products. The support that a project can give a group in this aspect would be the following:

Improving the external appearance

Through the groups' regular activities, or though workshops, the group members should be assisted to adopt the following procedures:

- Eliminate or clean the soiled or damaged parts of the produce.
- Neatly tie or bag the produce.
- Group (weigh, tie or bag) the produce in uniform amounts.
- Sell in small quantities or units according to customers' demand.

In order to increase members' awareness of the importance of the external appearance of the produce, it will be necessary to hold workshops with this theme or to take them on educational visits. (See section 4) below)

Creating labels and a logo

Together with the group members, the project could design a brand or label for the farmer group showing where the crops are grown. During sales activities, the fact that the produce is organic and grown through environment-friendly methods should be emphasized so that the brand or label will become known among consumers.

Processing farm products

The possibility of processing the group's farm products can be considered during the group's regular

activities or in conversation with group members. Workshops can then given to teach the concrete techniques for processing farm products. Section 11.5.3 mentions the important points to be considered when selecting the processing of farm products as an environmental business.

(4) Ecolabels and certification

The ecolabels and certifications will not change the quality of the farm products that have already been harvested. Rather, if the reputation of the eco-certified products spreads among the consumers and they come to be preferred over the other farm products, their prices in the market could rise. This would be an incentive to the farmers to produce more crops with eco-certification thus contributing in the long run to the extension of environment-friendly farming.

In reality, consumers cannot go to a farm to confirm the production process. Instead, they trust the "ecolabel" or "eco-certification" of the product at the moment of making a purchase decision. If an ecolabel or certification system is going to be implemented, it must be a system that guarantees the truthfulness of the information on the products. It must never betray the trust placed by customers in ecolabel or certified products. (This is the same type of customer loyalty that exists with certain manufacturer brands, for instance the opinion that "a certain car brand has better quality.")

There are various organizations inside and outside the country that give ecological certifications, however, their standards are generally too high for the farmers to quickly achieve certification, especially if they have no previous experience. (For example: one needs to prove that he has not used chemical fertilizer on the land for 5 years previous to certification.)

Therefore, you could begin an "internal certification" given by the project. First, decide on the project's standard for giving the certification. The products that pass this standard can be sold with the group or association's brand name. (For example: "Alhajuela Brand Organic Vegetables")

The certification standard should include the following two points: that the farm products are environmentally friendly, and that the transparency and trustworthiness of this information is guaranteed. Example of a certification standard:

- 1. Standard of environmentally friendly farm products:
- Chemical fertilizers are not used.
- The type and quantity of fertilizer used is indicated (organic fertilizers).
- Chemicals to control pests and diseases are kept to a minimum (use organic insect repellents).
- In the case that chemicals had to be used, the name of the chemical, the amount and the date of spraying are indicated.

2. Standards for guaranteeing the transparency and trustworthiness of the information:

- The name of the farmer (or group), his address and contact information are included.
- The name of a trustworthy certifying agent (government organization or project team, etc.) is indicated.

To establish an internal certification system, it would be recommendable to begin by recording the farm production process as explained in Chapter 11.2.

Before beginning the ecolabel and certification process, the groups could make a test run of using labels that only identify the product, for example the farmer brand and the origin of the product.

4) Trainings and informative visits

During the process of promoting the watershed conservation activities to group members, various training sessions, field visits and workshops related to commercialization and marketing can be offered to the members so that they can begin to conceive their own farm production plan in alignment with the markets.

Training sessions and field visits

The following are some issues to cover in the training sessions and field visits:

- Comparison between the supply and demand from the viewpoint of the farmer and the buyer;
- Introduction to the commercialization of farm products and services;
- Developing the spirit of an entrepreneur;
- Role of distributors in the commercialization chain; and,
- Tour of supermarkets, distributors of farm products and public markets.

Listed below are the organizations that offer training, or could send a lecturer, for one of the above themes. A talk given by the manager of a supermarket or by a local shop owner, explaining the story of their business, could also be interesting information for group members.

- MIDA: Ministry of Agricultural Development (specific programs such as PRORURAL)
- IMA: Agricultural Marketing Institute
- AMPYME: Micro, Small and Medium Business Authority
- ACOVIPA: Panamanian Association of Businesses and Distributors of Food Supplies
- IPACOOP: Panamanian Institute of Cooperatives

Workshop for group members

Depending on the need, a workshop could be offered to group members on the commercialization of farm products as a way to spark their interest in selling their products and services. It could be the foundation for them to begin their own sales activities. Below are some possibilities for the content of a workshop and the issues to be addressed. It is important to remind them that the results of these workshops should be applied to the Annual Activity Plan of the next year (see Chapter 12).

- Supply and demand of agroforestry products with a potential for commercialization. (Whether there is an unmet demand inside or outside the area; whether the products can be produced or not.);
- Ranking of the groups' interest in the potential products;
- Acquiring the resources needed for producing the products they are interested in (If there are resources in the area or not; if these resources are accessible or not.);
- Presentation of products according to consumer preferences;
- Making label and logo.

11.4 Reinvestment of group's own fund

11.4.1 Significance of the reinvestment of group's own fund and the elements to be learned

The previous sections explained the support a project can give to the groups in the management of their farming process, bookkeeping, and in promoting the sale of their products and services. In order for a group to be able to continue these activities, it will also need to learn to "circulate its funds". For this purpose, the group members will need to learn at least the following three basic skills (habits): "fair division of profits", "analysis of production costs" and "use and reinvestment of the group fund."

These three elements (habits) are not independent of each other, but are integral techniques and form the basic way of thinking necessary for a group to achieve the "circulation of its funds" in its activities to "manage farm production and sales" (explained in the previous section), "obtain outside funds" (explained in the following section", and "create an annual activity plan (explained in Chapter 12). The project can introduce this concept and these habits to the groups during their regular activities and in workshops so that the groups can adopt them in their activities.

Element	Objective and significance
1. Fair division of the	This is the ability to distribute the group's profits fairly to each member
profit	according to his/her contribution to the activities.
	When all members comprehend the concept of a "fair distribution according to
	the level of contribution", it will prevent internal conflicts in the group that
	could easily arise when dividing the profit. Furthermore, it motivates members
	to actively participate in the group activities. It also prevents the unfair
	distribution to certain members of the group.
2. Production cost	This is the ability to analyze the costs involved in crop production. Some
	projects often supply material to their groups to support their farming activities.
	In such case, the group members will know the sales price (and profit) as a
	concrete figure at the time of selling their produce, but they probably will not
	know the real cost of producing the crop (crop production cost) in concrete
	figures. Using the project's vehicle to transport the group's produce for sale is
	another example of effectively supporting the groups. However, in order for a
	group to achieve economic self-management, it is of utmost importance that the
	members understand correctly the "hidden" costs in these types of support.
3. Use of group fund and	This is the ability to appropriately reinvest the group's income in the next period
reinvestment	of activities.
	If all the group's income is distributed among members, the group will not be
	able to sustain their activities with their own funds. Given that the project will
	end after several years (investments from the project's fund will end), it is
	indispensable that the groups acquire the ability to allocate their funds, through
	group consensus, to "reinvest in future activities", "distribute among members"
	and "put in savings". In this way they can guarantee the sustainability of their
	activities.

Table 11-5 Three elements of the reinvestment of own fund

11.4.2 Supporting the reinvestment of group's own fund

1) Division of the profits

The concept of dividing the group's profit among members is transferred to the group members through the methods shown in the following table. The "group activity participation record" and the "bookkeeping record" (see section 11.2) are the essential documents that are necessary for this purpose.

Activities	Time	Contents and method of the project's support
Work record and	During all the year	See Chapter 11.2.
bookkeeping	(every week)	
Workshop	Before dividing	Before a group divides its profit among members for the first time,
	profits among	a workshop is held to teach this method to those groups that have no
	members for the	experience in, or do not know, the method for dividing profits
	first time.	fairly. In the Annex, there is a manual explaining the content and
		method for carrying out such a workshop.
		The objective of this workshop is for members to acquire the
		concrete method for dividing the group's profits fairly by using
		examples of a group activity participation record and a
		bookkeeping record with real entries (if you don't have real
		records, you can make sample records).
Division of the	Depends on the	Assistance is given to a group so that it can make a fair distribution
profit	group's own	of profits by understanding and using the method presented in the
	decision	workshop. The group is also advised not to distribute all its profit to
		the members, but to keep a part of it for the next activities. It would
		be convenient for a group if the group consensus for distributing
		profits would be made part of the Annual Activity Plan, in the same
		way that the "reinvestment of the group's fund", mentioned in the
		following section, is part of the AAP.

 Table 11-6 Methods of transfer of the concept on dividing profits

2) Production cost

The concept of farm production cost is transferred to the group members through the methods shown in the table below. The farming record (see section 11.2 "record of farming process") is the essential document that is necessary for this purpose.

Activities	Time	Contents and method of the project's support		
Record of	During all the year	See Chapter 11.2.		
production process	(every week)			
Regular activities	During all the year	During the regular activities, especially when there is income		
of extension	(every week)	after making sales, the farming record is used to calculate all		
		the investments that were made up to the moment of sale.		
		Especially the support given by the project to the group needs		
		to be clarified so that the group understands that this is also		
		part of the production cost (because if it is an expense that the		
		group will have to assume once it is on its own.)		
Workshop	When crop	A workshop is held for the groups to understand the costs of		
	production and sales	crop production. In the Annex, there is a manual explaining		
	have developed to a	the content and method for carrying out this workshop. Any		
	certain degree (and	crop can be used for analyzing its production cost, however,		
	according to the	the members' learning experience will be more effective if a		
	group's level of	crop is used that the group is cultivating and the members are		
	maturity)	familiar with.		

 Table 11-7 Methods of transfer of the concept on production cost

3) Reinvestment of own fund

The concept of reinvesting the group's own fund is transferred to the group members through the methods shown in the following table.

Activities	Time	Contents and method of the project's support
Bookkeeping and	During all the year	See Chapter 11.2.
record of	(every week)	
production process		
Regular activities	During all the year	Before beginning to grow any crops, a discussion is held with
of extension	(every week)	the group members on the investments that the members and
		the group can make promoting the group's investment. Using
		previous farming records, assistance is given to establish the
		items, amount, and cost of the inputs needed in concrete
		figures.
		Assistance is given so that the investments are made according
		to the investment plan (see below) that was made in the annual
		activity plan.
Workshop	When crop	A workshop is held to assist groups in understanding the
	production and sales	reinvestment of their own fund. In the Annex, there is a
	have developed to a	manual explaining the content and method for carrying out this
	certain degree and	workshop. In the workshop, members learn how to rationally
	before creating the	decide the amount to reinvest in farming and the amount to
	annual activity plan.	distribute among themselves.
Deciding on the	When preparing the	The project's investment in group activities is gradually
amount to reinvest	Annual Activity Plan	reduced according to a group's level of maturity and the
	(or previous to this)	project's progress until such investments become "zero".
		Assistance is given to the group, always respecting their
		autonomy, to decide on the amount of their own fund they wish
		to invest in the next period of activities. The group should use
		its own fund to at least cover the cost of consumables, such as
		crop seeds.

 Table 11-8 Methods of transfer of the concept on reinvesting own fund

11.5 Obtaining outside fund (elaboration of environmental business plan)

11.5.1 Basic concepts of obtaining outside fund

1) Significance of obtaining outside funds (of making an environmental business plan) and the prerequisites for receiving support

The acquiring of outside funds is an effective alternative for providing economic support to sustain group activities. In order to obtain outside funds, a group needs to make a plan (environmental business plan) and present its application to an organization that lends funds. However, it should be clear to

group members that the outside fund is not an "operational fund" to be used for continuing their current economic activities, rather it is an "initial investment fund" to cover the costs of beginning a new business, which the group could not cover with its own fund. The project staff should also be aware of this and assist the group members in understanding the purpose of the outside funds.

Since a fund obtained by a group from an outside source will require its responsible management, the project should assist the group in obtaining such funds only after the group has achieved the following abilities:

- The group can manage its funds and equipment on its own, furthermore it shares information within the group. (Results of the group's organizational strengthening).
- It has mastered the conservation techniques, both those that will be needed for its environmental business activities as well as other conservation techniques. (Results of technical transfer)
- It understands the relationship between its economic activities and the environment (point 2 below). (Results of environmental awareness creation)
- The group has a concrete vision for its future (Results of creating the action plan)

On the other hand, if a group has the ability to create, through its current activities, a fund that is large enough to cover the cost of investing in the development of an environmental business, there would be no need to apply for outside funds.

2) Basic concept of the environmental business plan

The important point for an environmental business plan is that its activities promote one of the following functions without hindering the other: either watershed conservation (conservation activities) or improving the inhabitants' quality of life (economic activities). If the activities do not fulfill one of these functions there is little sense to undertaking them.

The chart below shows some types of activities that are considered to fulfill the above-mentioned condition. If you are going to introduce a new activity it is important that you study beforehand the balance between its impact on the environment and its effect in improving the members' quality of life¹. Several examples of environmental businesses are presented at the end of this section (11.5.3), together with possible applications and procedure for investment.

¹ The scale of the activity, as well as its method, has a lot to do with the impact it will have on environmental quality. It is important to keep in mind that although an activity is listed in the chart, it could still cause environmental damage depending on its scale and the method used.

		Ideally hoped	d for change
Activity	Example	Environmental	Economic
		quality	activity
Activity that incorporates environmental conservation as part of the economic activity	Ecotourism	≭	≭
Change to a similar type of economic activity, but that has less environmental impact	Changing from raising chickens to raising quail	↗	-
Activity that gives added value to local products for sale	Processing harvested crops		7
Activity to sustainably use waste products or unused environmental resources	Compost and organic fertilizer	→ <i>▼</i>	*

: Quality improved

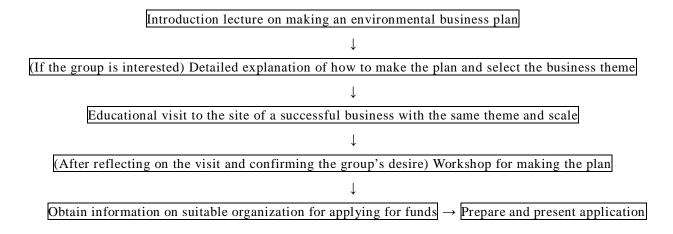
→ : No change in quality

11.5.2 Supporting the elaboration of environmental business plan

1) Order of support

Once you have confirmed that a group has achieved the level of maturity (mastered the abilities) mentioned above, the project can assist it in making the group's environmental business plan by following the order of the flowchart shown below. (See Table 8-1 also) The making of an environmental business plan should always be based on the will of the group members, therefore, it is important to always confirm what the group's intention is and their desire to make a business plan at each step before holding the workshop.

Furthermore, the project personnel should strictly refrain from making the plan in representation of the group. From the perspective of the group's autonomy and their taking ownership of the plan, the project personnel should only play the role of a facilitator so that the group can make its plan by its own will, even though it may take considerable time.



2) Holding workshops for making a business plan

The project supports a group in making its environmental business plan primarily by repeatedly holding participatory workshops with the group. The basic elements that should be included in the environmental business plan are indicated in the box below; the discussions and formation of group consensus are basically carried out in the same order in the workshops. This process will take several days (the workshops do not have to be held on consecutive days) including the collecting of necessary documents and information (for example, the cost estimates for the material and equipment needed for the business). The business plan will have 15 to 20 pages without counting the annex (which is the copies of the cost estimates). Regarding the method for carrying out the workshops (the details of what should be included in the environmental business plan), there is a manual included in the Annex of this Guideline.

Content of a Business Plan

- 1. Executive summary
- 2. Product or service
- 3. Management team
- 4. Market and competition
- 5. Marketing and sales
- 6. Business system and organization
- 7. Implementation plan
- 8. Risks and opportunities
- 9. Financial planning and financing
- 10. Annex (cost estimates)

3) Presenting the business plan (applying for funds) and running the business

The area inhabitants often do not have experience in obtaining outside funds, and neither are they used to filling out application forms. Therefore, the project can gather the information that would be difficult for the groups to obtain on their own (such as the organizations to which they can apply for funds) and present it to the group members. The project can also help in preparing the application form. The situation varies depending on the region, but the group may be able to apply for funds from governmental institutions or from NGO's. As a reference, there is a list in the Annex of the organizations and institutions in Panama, especially within the Canal watershed, to which funds can be applied for. The theme of the business plan will determine the final selection of which organization to apply to for funds.

The requirements of the organization that will be applied to for the external funds are studied and the group is given assistance in obtaining any requirements they may lack. There may be other requirements besides those of the foundation (i.e. applicants should be farmers or small businesses, etc.), such as requiring the groups to have legal status or a bank account, etc. The business plan may also have to be arranged according to the application form used by the organization lending the funds.

The prerequisite for making a business plan is that the "group has the ability to manage its funds by itself and has also mastered the techniques necessary (for the business)." Therefore, the group should not need any special support from the project at the stage of implementing its business. However, if the group is not used to handling large sums of money or feels uncertain about carrying out its activities in accordance with the established procedures, the project should constantly monitor the progress of the business to ascertain that the group is using and adequately managing the fund and that the business is advancing as planned. If it is found that there are shortcomings in business execution, assistance should be given to the group to correct its activities.

11.5.3 Examples of environmental business

The various types of environmental businesses mentioned above in section "11.5.1 Basic concepts for making an environmental business plan", their possible applications and necessary procedures are explained in this section. Regarding the "production and sale of organic crops", this is one of the main themes of this Guideline, and therefore it is explained more fully in Chapter 10, and is not addressed in this section.

1) Ecotourism

Possible applications

The advantage of introducing ecotourism in watershed conservation activities is that the concept of environmental conservation is naturally included in the tourism activity. The quality of the environment has to be kept above a certain level in order to be a natural resource that can attract tourists. Furthermore, one may need to plant trees to improve the quality of the environment and improve the attractiveness of the scenery and the natural resources. Thus, seeking economic benefit from ecotourism naturally contributes to the conservation of the environment. Ecotourism is an activity that incorporates environmental conservation.

A variety of activities fall under the category of ecotourism. But those who undertake such activities should be aware that if the perspective of environmental conservation is not emphasized in the activities, that it will merely be another business activity and not ecotourism.

Procedure for introduction

First, the right conditions are needed for attracting tourists (a beautiful scenery or attractive place of interest). Therefore, you should first research the area to find out what potential ecotourism resources exist there. When researching ecotourism resources, one should be conscious that what visitors from outside want to see (what they consider fascinating) and what the local inhabitants want to show (what residents consider worth showing) may not necessarily coincide. It is of crucial importance to take the point of view of the visitors from outside the area when researching (and later planning and developing) the tourism resources of the area.

Since ecotourism is also an economic activity the participants need to agree upon a monetary goal of the income they wish to make. The importance of making a monetary goal is that it will basically determine the scale of the activities to be undertaken. The activities should be developed gradually, therefore, the first goal could be for the first 3 years. For example: "this year we will make preparations and next year we want to receive 250 tourists and make an income of \$3,000." This makes it possible for the group to calculate that they will need to receive an average of two groups of 10 people every month with each tourist spending \$12.00. This is a concrete goal for the group to work toward and it can also be an incentive for members to participate in the ecotourism activities.

Once the goal is made, everyone interested in participating in the activity can analyze together the real natural resources that exist in the area and prepare a menu of resources with a potential for development. In ecotourism, one needs to keep a long-term vision to be able to continue investing in the activities for at least 3 years. Having people in the group with leadership qualities is a very important factor because they give a strong influence to the group to continue the activities. There are a variety of concrete activities that could be developed, such as making trails in the forests, preparing guides for observing

the flora and fauna, selling local handmade crafts, selling food made from organic products, etc. It would be advisable, however, analyze and prioritize these activities from the perspective of "including environmental conservation"

2) Small animal husbandry

Possible applications

From the perspective of watershed conservation, the primary significance of introducing small animal husbandry is to reduce the environmental impact of raising other types of animals by substituting them for smaller animals that have a similar economic value (For example: raising quail instead of chickens). Small animal husbandry can also be introduced for the purpose of making use of waste products or unused natural resources. (For example: raising iguanas by using the vegetation that can be harvested from the forest.) Small animals use smaller cages than larger animals reducing the startup costs and making them more attractive as a project and for extension.

On the other hand, increasing the scale of small animal husbandry will also impact the environment and could lead to greater deterioration (by increasing animal waste, etc.) of the environment than before introducing the activity. Therefore, it is important to keep a clear idea of the project's purpose and promote its extension in a manner that does not cause negative impact on the environment.

Procedure for introduction

Before making the business plan, it is important to at least confirm that there is a market that can absorb the amount of production that is anticipated and that there is a viable way to access the market. As mentioned above in ecotourism, a goal of the amount of profit the group members wish to make is established through consensus. In the case of animal husbandry, the animals will require daily care (or even every few hours). Therefore before committing itself to this activity, it is important for the group to consider if it has the organizational capacity to provide the care the animals need.

You should first analyze the conditions (social, environmental, etc.) where the group is located, and on that foundation you can better plan the activities according to the scale which is allowed to implement.

3) Agro-processing

Possible applications

The advantage of introducing the activity of processing farm products is that it gives aggregate value to the organic products grown on the farm making it is possible to sell them at a higher price. Examples of the sale of processed farm products are hot chili pepper sauce and stuffed pastry made from

plantains.

However, when contemplating the processing of farm products as an environmental business, one needs to consider of the following two points. First, the group needs to confirm that it can obtain the raw material (organic produce) needed for processing in stable quantities and quality. If the group has to buy the raw material from outside, there is no guarantee (or it would be difficult to prove) that it was produced by environment-friendly techniques, and there would be a possibility that the business is indirectly contributing to greater environmental damage. Second, as the size of the business grows the amount of wastes (produced from processing the farm products) could negatively impact environmental quality. Therefore, it is important to have a clear vision of what the purpose of the environmental business is and to be conscious of not placing greater burden on the environment in operating the business.

Procedure for introduction

As mentioned in the previous example, the group needs to confirm that there is a market for the processed goods and also agree among its members on the goal for the income they wish to achieve. An analysis of the group's surroundings (social condition, environmental condition, etc.) is made to determine the type of processing activity to be implemented, and a concrete plan is made according to the scale of business the group can implement.

11.6 Inputs needed

The table below shows the investments needed for the above activities. The activities in this Chapter consist of regular assistance of extension in form of OJT carried out by project staffs and irregular workshops. The regular extension activities do not require special material or expenses (rather, they are already included in the cost of the activities explained in the previous chapters).

The inputs needed to hold a workshop or other activities are shown in the table below. Furthermore, depending on the people's customs in the area, or time restriction, it may be necessary to provide lunch to the participants. In such case, you will have to add the cost of lunch to the budget. (The cost will depend on the number of participants, but in Alhajuela Project about B/.20 was spent on lunch in each workshop.)

Activities	Personnel	Time	Material and cost
1. Management of production process and accountingRegular extensionOne or severalCarried out through the• Only some office supplies			
Regular extension activities	persons from the	Carried out through the regular extension	Only some office suppliesCashbook (1 per group)
activities	1	activities.	• Cashbook (1 per group)
Workshop	project 1 facilitator		Motorials (aposified in the
Workshop		Planning and preparing the	• Materials (specified in the
	(1 assistant)	material: 1 day (but 3 days	manual in Annex)
		for the first workshop)	• Ingredients for lunch (about \$20
2 Salas of modult	a and convious	Implementation: half a day	each time)
2. Sales of product: Market research		5 days to 2 months	
Market research	One or various	5 days to 2 months	• Only some office supplies
	persons from the	(depends on the scope of	• (Expense of personnel in the case
	project (or a	the research)	of using a professional
	professional		researcher)
	researcher); 1 or 2 assistants		
Support for sales	One or various	Residently done together	• (Depends on the type of activity)
Support for sales promotion		Basically done together with the regular extension	• (Depends on the type of activity)
promotion	persons from the	activities (depends on the	
	project; Experts, as needed	type of activity)	
Training sessions,	One person from	Planning and preparation:	· Monting expenses
field visits and	-		Meeting expensesSome office supplies
	the project; One or various	2 days Implementation: 1 day	Some office suppliesFood for participants
workshops (each time)	lecturers	Implementation: I day	• Food for participants
3. Reinvestment of			
		Considered out the sough the	
Regular extension	One or several	Carried out through the	• Only some office supplies
activities	persons from the	regular extension	
X 7	project	activities.	Madaniala (ana sifi ad in dha
Workshop	1 facilitator	Planning and preparing the	• Materials (specified in the
	(1 assistant)	material: 1 day (but 3 days	manual in Annex)
		for the first workshop)	• Ingredients for lunch (about \$20
		Implementation: half a day	each time)
4. Acquisition of ou Educational visit	One or several	Diagning and accordination.	
to a successful site		Planning and coordination:	• Some office supplies
to a successful site	persons from the	2 days	• Food for the participants
	project; Experts, as	Execution: 1 day (2 days if	• Remuneration for the instructor
Wantahan	needed	the site is distant.)	at the site visited (as needed)
Workshop	1 facilitator	Preparation: 2 days,	• Manila paper, adhesive tape,
	(if needed, 1	(acquire an outside lecturer, etc.)	markers, and some office
	person from the		supplies
	entity being	Implementation: 1 day to several days (depends on	• Ingredients for lunch (about \$20 each time)
	applied to for the funds)	the application	
	funds)		
Collect	One or several	requirements)	• The complete application form
information on		1 day ~ various days	• The complete application form
	persons from the		and some office supplies
financing entities,	project		
and support the			
group's			
application			
process			

Transportation cost is not included.