

GUIDELINES

for

Developing and Implementing

Poverty Reduction through Irrigation and Smallholder Markets
(PRISM) Programs

20 February 2005

International Development Enterprises

Introduction

Today, more than 1.2 billion people live in “extreme consumption poverty”¹. Seventy-five percent of those people live in rural areas, have small plots of land and depend on agriculture for their livelihood². Solutions to rural poverty must focus on these rural poor farmers.

Since 1981, IDE has worked to reduce poverty in Asia and Africa by helping the rural poor increase their agricultural productivity and income. This work has generated income for rural small-farm families and job creation for entrepreneurs.

From this experience, IDE developed a unique market-oriented approach to economic development for the rural poor – Poverty Reduction through Irrigation and Smallholder Markets (PRISM). PRISM creates networks of small enterprises to provide agricultural supplies needed to improve small farm productivity and links small farm families to markets for effective and sustainable poverty reduction.

Using the PRISM model, IDE seeks to integrate millions of small farm households into markets and to create sustainable businesses to reduce rural poverty worldwide.

PRISM Goals and Principles

The goal of the Poverty Reduction through Irrigation and Smallholder Markets (PRISM) is to improve the economic, social and environmental conditions of the world’s poor. To achieve this, PRISM integrates a business development perspective with a social, environmental and political perspective. PRISM is based on the following characteristics and principles:

Smallholder Focus. Smallholders are farmers cultivating between 20 square meters and two hectares of land. Smallholders constitute the majority of the world’s poor, so PRISM focuses on the unique needs and opportunities of smallholders.

Make Markets Serve the Poor. PRISM is based on the belief that market solutions to poverty prepare the rural poor to participate effectively in markets, leading to substantial and sustainable income improvement and empowerment of the poor and marginalized in society.

PRISM envisions the rural poor as potential entrepreneurs and customers, not charity recipients.

PRISM envisions smallholders as proactive members of a system of private-sector enterprises, which include input suppliers, smallholders, and output handlers. These private-sector enterprises coordinate themselves to fulfill specific market demands.

PRISM involves understanding and analyzing the agricultural and market situation of smallholder farmers and then developing a business plan for those smallholders. This business plan shows that smallholder will benefit from the proposed market intervention. The business plan also proves that the intervention will be sustainable for the smallholder farmer. To be sustainable, the smallholder must earn enough extra income to justify the risk and expenses. As more smallholders participate in this emerging market, more efficient supply and marketing systems develop. This drives manufacturing and supply prices lower and enables more smallholders to participate. The goal of PRISM is to provide the necessary catalysts to start this self-sustaining market system while ensuring that participating smallholders benefit and that the natural resource base is managed for the long-term.

Women are often the most disadvantaged in many countries. For this reason, PRISM seeks to benefit women. IDE treats female entrepreneurs as market segments with growth potential and with particular needs due to unique opportunities and constraints to business survival and growth.

Improve Water Control. IDE experience demonstrates that access to and control of water is often critical to reduce poverty because water control raises farm productivity, reduces the risk of crop failure, and enables investment in high-value crops. PRISM identifies innovative, affordable, small-plot irrigation technologies strategies for smallholders to access, store and control water for crop irrigation. Such strategies improve water-use efficiency, reduce labor burdens and increase economic returns to the poor.

Listen and Learn. IDE responds to the unique constraints and opportunities of the rural poor by listening to, learning from and championing the needs of farm families living in poverty.

Sustainable Resource Management. The rural poor depend on the natural resource base and the associated biological and environmental support systems. For this reason, PRISM promotes sustainable resource management, specifically focusing on soil, land and water resources.

¹ Rural Poverty Report 2001, International Fund for Agricultural Development, Oxford University Press Inc., New York, NY, 2001.

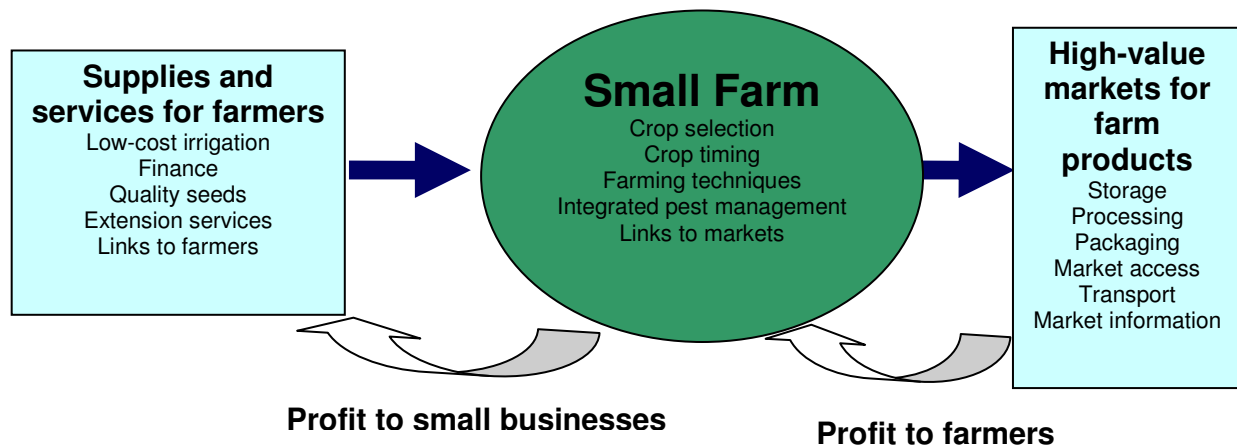
² Reaching the Rural Poor: A Strategy for Rural Development, World Bank 2001.

PRISM in Action

PRISM asks and answers four basic questions to develop pro-poor market systems:

- What market opportunities can small farm families take advantage of?
- What constraints prevent small farm families from participating in these market opportunities?
- What small enterprises exist or can be created to address those constraints?
- What assistance is required to help those enterprises better serve the needs of small farm families?

PRISM works to create an integrated system of private-sector enterprises that include input suppliers, small-farm families, and output markets, as shown below:



Bangladesh, Cambodia, India, Myanmar, Nepal, Vietnam, Zambia:
 IDE trains local manufacturers to make foot- and hand-powered pumps. The pumps are distributed through local shops and installed by private well drillers. Over 1.8 million pumps have been purchased and used by small farm families to generate

Bangladesh: IDE trains women in vegetable farming techniques to improve the quality of their produce, ensuring that the women earn a good profit.

Cambodia: IDE trains private extension agents to deliver high-quality inputs, technical advice, and market information to small-scale vegetable growers.

Nepal: Farmers utilize the PRISM network of services and products to grow high quality vegetables and to sell these vegetables for profit. As a result:

- Average family income increased by 600 percent
- Family nutrition improved
- Investments in family health improvement increased by 47 percent
- Expenditures on children's education increased by 87.5 percent
- Women's quality of life improved. Women have increased control over income and participation in family decision-making.

PRISM in Action

IDE uses the PRISM approach to benefit the rural poor through:

⇒ Market research for market-led production

IDE conducts market research and analysis to understand demand for small-farm products. IDE then works with

Zambia: IDE analyzed opportunities for poor farmers to produce and market high-value paprika and lemon grass crops, increasing net farmer income

small farm families to address constraints and capitalize on market opportunities, generating profits for small-farm families.

⇒ Pro-poor technology innovation and marketing

IDE develops and promotes affordable, small-scale technologies that poor farm families use to improve household productivity and generate significant income. IDE establishes networks of local enterprises that make, distribute, sell, and install these technologies. This results in lower costs to farmers, sustainable supply chains, available parts and services, and thriving rural economies.

India: IDE created a robust market for low-cost drip irrigation kits. Suitable for small farm plots, these kits generate \$800 annual for 28,203 very poor

⇒ Training and services in farm production and processing

IDE builds the capacity of farmer groups, government and private businesses to supply services that increase smallholder incomes. Services include training in crop selection, production, post-harvest handling, processing, use of market information and private provision of extension services with cost recovery.

Nepal In 2004, IDE trained 4,016 female and 5,277 male farmers in production of vegetables off-season for increased profits.

Purpose of the PRISM Guidelines

These guidelines have been written for IDE, other NGOs, local organizations, partner organizations, governments and others interested in learning about and/or applying PRISM.

The **objectives** of these guidelines are to:

- Guide the development and implementation of PRISM programs.
- Raise awareness of the PRISM model.

- Educate and develop the capacity of other organizations to use PRISM.
- Establish a starting point to further develop the PRISM model.

Structure of the PRISM Guidelines

These guidelines have three parts:

- **PRISM Strategy:** An overview of the PRISM methodology.
- **PRISM Toolkit:** Methodological tools, guiding questions, worksheets, and questionnaires to design, implement and review a PRISM program.
- **PRISM Case Studies:** Research, studies, field experience and examples of how PRISM principles and tools are applied.

These guidelines provide guidance, information, experience and materials based on IDE experience. The guidelines are flexible to address the uniqueness of different contexts and opportunities. As experience develops in applying PRISM in different contexts and as new ideas and innovative approaches are developed and tested, the guidelines will be revised to incorporate these advances.

PART 1: PRISM STRATEGY

The PRISM strategy focuses on the unique advantages of rural farmers and leverages those advantages to increase smallholder income. To achieve positive impact on a large scale, PRISM also changes the larger context of rural farmers through socio-cultural, natural resource management and policy strategies. This combination of leveraging the advantages of small-farm families and changing the context in which farmers operate enables smallholders to lift themselves from poverty.

Smallholders' needs, opportunities and constraints differ in every context. For this reason, PRISM is not a set of instructions. PRISM is a flexible guide to design, implement and revise an intervention. Each intervention will differ according to smallholder needs, local priorities and opportunities.

The PRISM strategy has **four phases**, as illustrated and described in detail below:

Phase 1: Situation Analysis

Examine a large geographic area to understand general patterns and trends and collect background information. Understand the smallholder situation and develop an understanding of the constraints and opportunities of the farmer. This process includes: investigating and quantifying crop, water, soil, pesticide, fertilizer, labor, social, legal, and market information. Identify potential smallholder market

opportunities and evaluate these opportunities using tools from the PRISM Toolkit. Evaluate possibilities for market interventions that enhance the unique advantages of the smallholder farmer.

Phase 2: Intervention Design

- Develop a *Smallholder Business Plan* (SBP) that proves the viability and profitability of the identified small farm market opportunities.
- Develop a *Project Implementation Plan* (PIP). The PIP provides a plan for small farm families to access the identified market opportunities. The PIP integrates strategies to manage the value chain according to PRISM principles of societal and environmental responsibility. The PIP also details partnership arrangements and specifies activities, timeline, baseline measurements, anticipated impact, financing, monitoring, evaluation and reporting, and an exit strategy. Finally, the PIP details how to market the SBP to the smallholders and to other players in the smallholder market system.

Phase 3: Project Implementation.

Implement the Project Implementation Plan as designed.

Phase 4: Monitor, Evaluate, and Adapt.

Evaluate whether the program is meeting its goals and objectives and adapt the intervention as needed.

Phase 1: Situation Analysis

Objectives of Situation Analysis

- Understand patterns and trends in poverty, agro-climate, potential sub-sectors, markets, government policy, culture, etc.
- Identify regions with appropriate conditions (such as agro-climatic and market) for initial PRISM intervention.
- Obtain a detailed understanding of the context of the smallholder farmer in the identified region(s).
- Identify two to three promising market opportunities that provide significant income and/or self-sufficiency in food production for smallholders.
- Utilize tools such as crop budgets and sub-sector analysis to demonstrate the viability of the proposed opportunities.

Output of Situation Analysis

1. General assessment of the region/market
2. General characterization of the opportunities (issues, priorities and questions for additional research)
3. Two to three promising market opportunities
4. Strategic orientation of the project

First Year Payoff and the Smallholder Business Plan

To grow produce for markets identified through the PRISM process, a farmer often buy items that she or he does not usually buy. These items can include irrigation equipment, seeds, fertilizer, and pesticides. In the first year of the PRISM intervention, the smallholder should earn enough income to pay for these items and to earn a profit. By developing the Smallholder Business Plan (SBP), the PRISM planner proves that the smallholder will earn enough additional income to pay for these items in the first year. If this is proved in the SBP, after the first year, most additional income will be profit for the smallholder.

Strategy for Situation Analysis

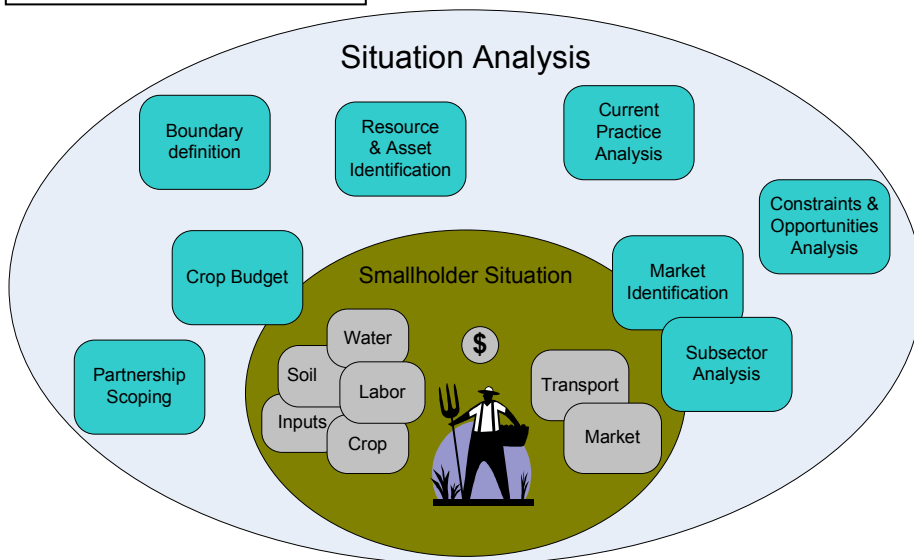
This first phase of PRISM seeks to understand the context of the smallholder farmer and to identify two or three potential market opportunities to increase smallholder income. The PRISM planner learns about general physical, social and economic characteristics of the region. The planner examines this context to identify opportunities that leverage the natural advantages of smallholders. The planner may also see opportunities specific to that context, such as potential partnerships, which multiply the impact of the intervention.

The following guiding points and questions focus information collection on opportunities where there is the greatest potential for increasing smallholder income. In addition, the PRISM Toolkit provides *Criteria for Selecting Promising Opportunities*. The criteria for successful interventions in the PRISM Toolkit are based on IDE experience. The Toolkit also provides data collection needs for those criteria.

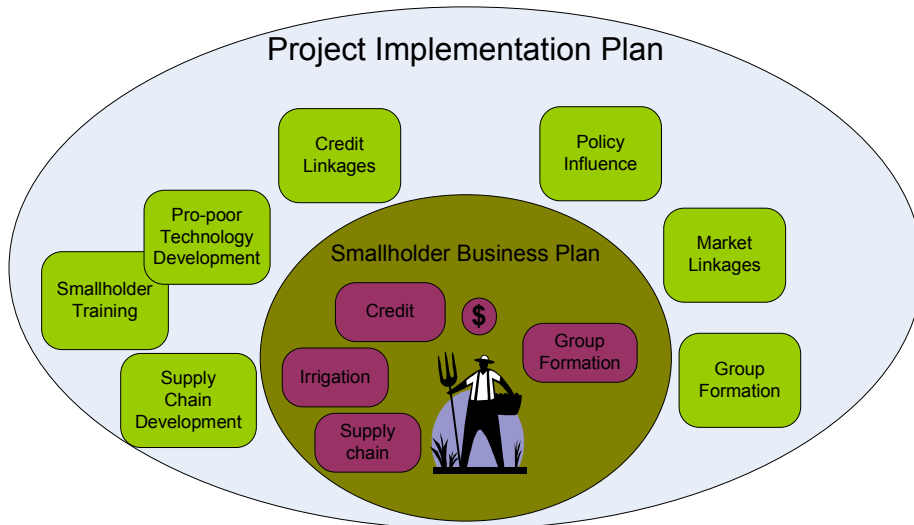
Guiding points to identify market opportunities for increasing smallholder income:

- In this phase, you look for promising market opportunities. You explore many different ideas, including ideas that seem crazy if these would benefit smallholders.
- Select opportunities that provide significant income and/or self-sufficiency in food production for smallholders.
- Focusing on crops that are currently being grown can be cost-effective, minimize risk and utilize existing smallholder knowledge and skills.

The PRISM Strategy



Intervention Design



Project Implementation

Monitor, Evaluate, and Adapt

Operating Principles

shaping each step in the PRISM process

Poverty focus
Benefits reach poorest people possible

Gender/social
Benefits reach disadvantaged groups

Environmental
Sustainable resource management

Entrepreneurial
Innovative market-based solutions

Listening & Learning
Participation of smallholders and partners

Addition guiding points to identify market opportunities for increasing smallholder income:

- Focusing on sub-sectors with low start-up costs and those that promise a rapid return on investment helps ensure that smallholders can invest and maintain and increase investments in the future.
- Focus on sub-sectors with large and growing demand.
- Focus on non-perishable crops.
- Consider ways to minimize smallholder risk (e.g. crop diversification, ensure that smallholder household food needs are met, etc).
- Focus on high-value crops for which smallholders have or can develop a comparative advantage (e.g. crops that require a high degree of labor intensity or attention to detail and/or crops that benefit from intercropping).
- Focus on crops for which smallholders collectively can be organized and assisted to compete effectively with industry.
- Examine sub-sectors where gains can be made through improving land and water productivity rather than labor productivity.
- Examine areas where processing facilities are available.
- Focus on sub-sectors that sustain the natural resource base.
- Understand the value chain and identify how to integrate smallholders into the value chain.

Questions to understand the **project context** include:

Poverty: Who are the poor? Where are the poor? When are they poor (e.g. chronic poverty or seasonal poverty)? Approximately how many are poor? What are the population patterns (density, migration, urbanization)? Is there a need to help the poor meet nutritional needs or raise income or both? What are some ways to identify and reach those poor?

Natural resources: What are the current land-use patterns (soil conditions, cropping systems)? How are these changing? Are there important macro-level natural resource issues that may impact land and/or water use (large-scale deforestation, conflicts over natural resources, desertification)? Are there laws / policies / customs at the regional, national, or international level that impact use or control over natural resources?

Markets: Are there laws or policies at the regional, national, or international level that impact market access? Are there current/potential businesses or business development services that could impact a

large number of smallholders? Are there supply systems to support new crops? What are the demand patterns and trends in demand? How do government policies impact potential sub-sectors?

Socio-cultural: Are there ethnic groups with differing roles in potential sub-sectors? What laws/policies/customs impact gender use or control over resources, access to the market or role in meeting household nutritional and other needs? Does this role and status vary in different regions? Are these laws / policies / customs changing? The PRISM Toolkit provides *Tools for Gender Analysis*.

Partnership: Are there potential partners at the national level, such as government agencies, private sector, research institutions, donors, or NGOs? The PRISM Toolkit provides *Tools for Partnership Development*.

Information is gathered through literature reviews, collecting and analyzing secondary data from government agencies, research institutes, business associations, local universities, donor agencies, other knowledgeable sources and field visits.

This high-level information provides an understanding of the patterns and trends affecting potential projects. It also helps identify regions and markets where a PRISM intervention would be successful.

The *Guidelines for Region Selection* in the PRISM Toolkit provides details on how to choose regions for further study. Once these regions have been identified, the next step is a detailed examination of the smallholder's situation.

Questions to understand the **smallholder context** include:

Water: Usually, water is the **single most important factor** limiting smallholders from earning more income. Other inputs generally do not limit smallholders. For example, labor is usually widely available and not expensive. Seed, fertilizer, and pesticides are required in small quantities. Water, however, is heavy and is required in large quantities. Natural rainfall is often variable. Reliable crops require a reliable water supply and efficient use of that water supply. Questions to answer regarding water include: What is the water availability (annual rainfall, frequency, deviations)? How does water availability impact the poor? Are there laws or policies at the national, regional, or international level that impact water availability, use, and quality? How are the smallholders currently using water (river diversions, pumping from lakes, household wells,

community wells, etc.)? What are the opportunities for making more water available (treadle pumps, shared community pumps, diversions) and for making more efficient use of the available water (storage systems, drip irrigation)?

Crops: What crops are traditionally grown and in which regions? Which of these crops are high-value? Can these crops be stored? Can these crops be exported? Which crops can generate the most income for poor farmers? Are there gender or environmental implications of the crop choice?

Land: What land ownership and land use patterns exist in the region(s)? Do small farm families own their land? Do they lease the land? Do they share the land with other smallholders? Are their rights to use the land permanent? Are they willing to invest in equipment needed to grow crops on the land?

Soil and Inputs: What are the soil types for the given region(s)? What are the pest issues for a given region and crop? What are the pesticide and fertilizer requirements? Does the smallholder gather their own seeds or purchase them? Can these inputs be easily obtained at reasonable prices?

Labor: What are the labor requirements for the crops? How do these requirements change during the growing season? What are the gender aspects of labor? What are the likely impacts of intervention on the labor equation?

Credit: What (if any) are the potential sources of credit? Are there other credit systems in the region/country that might be made available? Are there ways of organizing groups of smallholders to obtain credit?

Markets: What are the potential local, regional, national, and international markets? How 'open' are the markets - can smallholders access the markets and receive a fair price? What is the price of the crop at the market? Does the price depend on quality? How do the prices vary in different seasons?

Transport: What is required to bring produce to the market? What is the transportation cost? How much time is needed? Will the roads damage sensitive produce? Do smallholders transport the produce themselves, organize to transport it, or sell to middlemen at the farm gate?

Organizations: What organizations can help the smallholder obtain knowledge, credit, inputs, access to water, marketing, and transport?

Information to answer the questions above is gathered primarily through interviews with the smallholder farmers and local smallholder organizations. Other valuable sources of information include local agricultural extension agents, non-governmental and governmental organizations.

Diamonds in a Haystack

Asking all these questions is not an academic exercise. While asking these questions, you are always thinking about promising opportunities for smallholders. Although you may not use all of the information gathered, you will gain a valuable understanding of the smallholder's world through this process of asking questions and learning from smallholders. As a result, when a "diamond" idea appears, you will recognize the opportunity and explore it further. You will then determine if it is a viable business opportunity and will understand the support smallholders need to profit from this opportunity.

Evaluating Smallholder Opportunities

General Review of Opportunities As you gather information, you also evaluate potential business opportunities. Tools to evaluate business opportunities, including crop budgets and subsector analysis, are provided later in these Guidelines. At this stage, the tools are simplified and used to review possible opportunities. Using these simplified tools, you can create rough 'back-of-the-envelope' calculations to review promising opportunities.

For example, in farmer interviews, you may learn that tomato farmers do not irrigate and all farmers harvest at the same time. As a result, the price of tomatoes doubles one month after the end of the rain. You can quickly calculate 'on the back of an envelope' the cost for irrigation and the additional income for smallholders if farmers irrigate and harvest one month later. This quick calculation evaluates whether this idea might generate income for farmers.

It is also useful to drawing a preliminary sub-sector map for each sub-sector under consideration. The map represents different stages of the sub-sector, as well as product, financial and information flows. The preliminary sub-sector map can identify key areas of

investigation and information collection needs. The PRISM Toolkit provides a sub-sector mapping form.

Detailed Assessment of Opportunities When you have developed a short list of possible opportunities for smallholders, you conduct more detailed studies of those opportunities. The questions focus on specific opportunities. These questions include:

Key constraints and opportunities. What are the opportunities for smallholders in this subsector? What are the key constraints that prevent smallholders from accessing these opportunities? Are there leverage points to address several constraints at the same time? Are there opportunities to organize smallholders to compete with other market competitors? The PRISM Toolkit provides *Worksheet 1: Evaluating Subsector Dynamics and Potential Interventions* and *Figure 2: Diagnostic Procedures for Identifying Leveraged Interventions*.

Socio-cultural. What is the potential socio-cultural impact of developing businesses in the identified sub-sectors? Identify the different needs, roles, opportunities and constraints of women and men in potential sub-sectors. Identify the differential impact of potential interventions on women, men and the different ethnic groups. The PRISM Toolkit provides *Tools for Gender Analysis*.

Natural resources. What is the potential impact on natural resources if many smallholders become involved in this sub-sector? The PRISM Toolkit provides *Tools for Environmental Impact Assessment*.

Partnerships. What opportunities are available for partnerships? The PRISM Toolkit provides *Tools for Partnership Development* to guide the process of selecting and working with partners.

The project development team identifies stakeholders to participate in this information gathering through:

- Smallholder interviews/focus group discussions
- Market surveys and market analysis
- Formal/informal discussions/workshops with key informants in government, civil society and the private sector
- Small samples of key informants from each stage of the subsector
- Conducting studies

Phase 2: Intervention Design

Objectives of Intervention Design

- Formally analyze the possibilities developed in Phase 1 and choose one project

- Develop a **Smallholder Business Plan (SBP)** that details the smallholder involvement in the project.
- Develop a **Project Implementation Plan (PIP)** that describes:
 - How the SBP will be marketed to the smallholders
 - How the plan will be marketed to the others in the value chain
 - Where high-level intervention (e.g. forming marketing groups or influencing government policy) may be necessary
 - What strategic partnerships will be needed
 - How the project will be managed according to the PRISM principles of societal and environmental responsibility
 - Basic project planning such as timelines, baselines measures, financing, monitoring, evaluation, reporting, responsibilities, etc.

Strategy for Intervention Design

The specific strategy for each context depends on many different factors, including: local conditions and needs; farmer interest; government priorities; focus and expertise of the project planners and of partner organizations. Previous PRISM projects have generally utilized one of the following three approaches:

Water and Irrigation Studies With this approach, look for untapped, underutilized, or inefficiently used water resources in areas where irrigation or improved irrigation practices would provide significant benefits for large numbers of smallholders. For example, IDE-Bangladesh introduced treadle pumps to effectively use water resources for farmer prosperity. In India, IDE promotes *IDEal Drip* in areas where current wells no longer produce enough water to support conventional surface irrigation systems.

IDE-Cambodia developed a private-sector network of 300 manufacturers, retailers, and well-drillers. As a result, more than 20,000 treadle and hand pumps have been installed for domestic water and irrigation use.

Community Assessments This approach starts by visiting poor rural communities and talking with community members, from the poorest to the wealthiest smallholders. The goal is to find out what smallholders believe limits them from earning more income. Using this knowledge, IDE works with them to overcome these constraints. This approach also involves identifying untapped, underutilized, and/or poorly utilized resources that - if more effectively utilized - could provide significant benefits. In addition, this approach searches for entrepreneurial

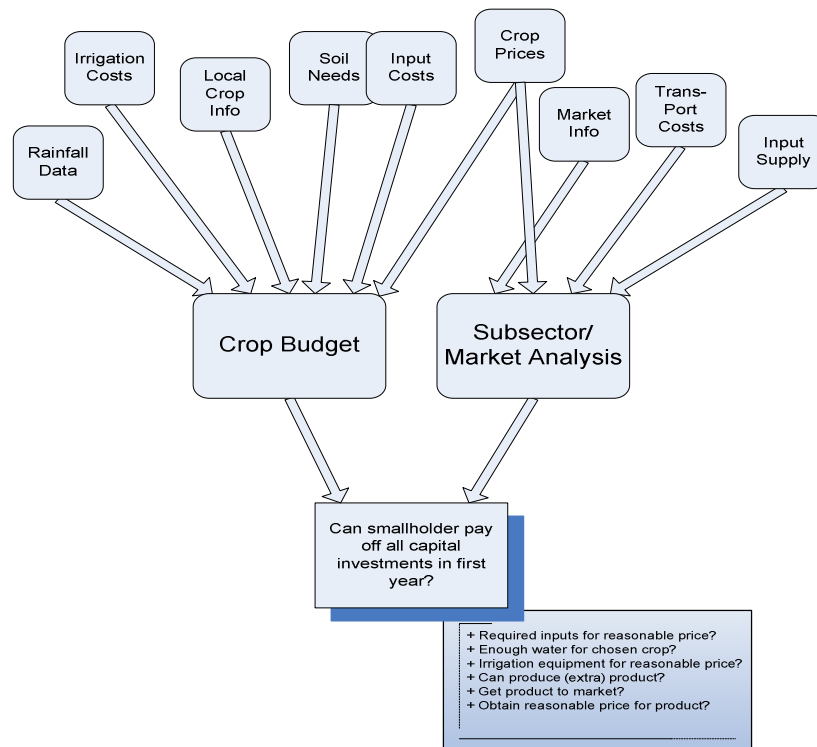
business opportunities for the smallholders. An example of this approach is IDE activities in Nepal.

Crop Budget and Subsector Analysis Using this approach in Zambia and Ethiopia, IDE searched for specialized crops that provide many smallholders with a high income. Specialized crops include crops that require careful attention. Small farm families can provide this attention better than large-scale farms, so smallholders have an advantage in producing these crops. This approach requires crops that can be adapted to small plots. In addition, smallholders must

be able to get the harvested products to markets that provide high returns.

The three approaches described above can be combined. Local factors will determine the most appropriate and effective combination of approaches. These factors may include culture, tradition, market conditions, government policy, expertise, experience, etc.

The PRISM Guidelines and Toolkit provide tools and strategies for all three approaches.



First Year Payoff

To grow produce for new markets, a farmer often buys items that she or he does not usually buy. These items can include irrigation equipment, seeds, and fertilizer. In the first year of the PRISM intervention, the smallholder should earn enough income to pay for these items and also to earn a profit.

The important question is: “Can the smallholder pay all capital investments in the first year?” To answer this question, you must focus on the smallholder and truly understand her or his situation. You must also quantify all factors involved in smallholder production and marketing. The two primary tools used to answer this question

are the Crop Budget and Sub-sector Analysis. A crop budget focuses on requirements to grow the crop, including irrigation and other input costs. Sub-sector analysis focuses on marketing, sales and other questions not included in the crop budget. Below is a more detailed explanation of crop budgets and sub-sector analysis.

Crop Budget

A crop budget is a tool used to evaluate the profitability of a crop. IDE has developed crop budget tables for smallholders. Below is a simplified example of a crop budget (see the PRISM Toolkit for a detailed example).

Example Crop Budget

	Units	Typical	Irrigated
Yield			
(kg/ha)		576.00	1704.00
Price	\$/kg	1.10	1.35
Revenue	\$/ha	633.60	2,300.40
Input			
Costs	\$/ha	379.39	1628.31
Return	\$/ha	254.21	672.09

Inputs	cost	cost
Seed	35.00	35.00
Fertilizer	183.00	425.00
Irrigation	0.00	400.00
Other	161.39	268.31
Total costs	379.39	1628.31

A crop budget compares different farming situations. The crop budget example above compares:

- A smallholder farmer using typical (rainfed) techniques. This farmer earns \$254 per hectare.
- A smallholder farmer using irrigation. This farmer has higher expenses and higher yield, quality and price. This farmer earns \$672 per hectare. Note that the higher return pays for the irrigation equipment costs in one year.

In addition to the crop budget cost analysis above, it is important to realize that the farmer using irrigation has higher risks. This farmer spends more money than he or she normally spends to farm. This additional expense may be more than the farmer's usual annual income! If there is a problem with the crop, the farmer may lose a lot of money.

Sub-sector Analysis

Sub-sector analysis looks at a much 'bigger picture' than the crop budget. Sub-sector analysis is used to develop a complete understanding of the dynamics of the entire market system around the product.

This includes understanding the following:

- Input supply chains for seed, fertilizer, pesticide, equipment, etc.;
- Product marketing and pricing situation;
- All the various players (government, middlemen, NGOs, local organizations, etc.).

Early in the PRISM Situation Analysis phase, a simplified sub-sector analysis is used to determine if smallholders will make money growing the

product. The following questions assist in this process: Is there a large and/or growing demand for the product? Is the market 'open' (if smallholder farmers produce the product, will they obtain a good price? Does one group control the prices or access to the market?) Is the crop high value? Does the crop store well? Are the markets near to small farms?

After you have selected several promising opportunities for smallholders, it is important to conduct an in-depth sub-sector analysis. This analysis helps you to choose among possible crops. The analysis also identifies ideas for the PRISM intervention. For example, if smallholders state that local stores sell poor quality fertilizer and that even this is frequently unavailable, you might consider ways stabilizing the quality and availability of the fertilizer. You should also consider using these farm stores as a distribution channel for the requisite irrigation supplies. See the Subsector Analysis section of the PRISM Toolkit for more details.

It is important to understand the relationship between the crop budget and subsector analysis. The crop budget simply assumes that seed and fertilizer can be obtained at a certain price and that the product can be sold at a given price. Part of subsector analysis is to examine and understand the dynamics that may have an impact on the crop budget:

- + Are there supply chains for seed and fertilizer that provide them at reasonable costs and will they be able to meet the increased demand of irrigation?
- + How stable are the product prices and how much are they likely to change if the supply increases due to irrigation?

Project Implementation Plan (PIP)

While each intervention will vary according to the context, all interventions should be driven by the PIP, which describes all aspects of the project:

Goals and Objectives: Defines how the intervention will reduce poverty and manage the value chain according to societal and environmental principles.

Boundary Definition: Defines the program area (geographic, target population and/or marketshed).

Smallholder Business Plan: It is very important to understand that the SBP is the core of the

PRISM Project. All other aspects of the PIP simply play supporting roles and must always be directed to ensuring the success of the smallholder's business venture. A PRISM project is only successful if the smallholders themselves are successful – the SBP is what *proves* that the smallholder's business will be successful.

Smallholder Marketing: PRISM is not a traditional intervention which 'gives away' products or a technology. Smallholders will be purchasing this equipment on their own. A major portion of a PRISM project is therefore determining how to market to the smallholders themselves. The smallholders need to be convinced that the proposed product and technology meet *their* needs and will provide them with a profit that makes the risk worthwhile.

Supply Chain Development: Describes problems and proposed solutions for ensuring smallholders can obtain requisite seeds, fertilizer, pesticide, tools and irrigation equipment at a reasonable price. Subsector analysis should identify these problems and the development of solutions is an important part of the PIP.

Market Development: Describes market opportunities and limitations for the smallholder. Identifies possible market interventions and describes plans for increasing existing markets and development of additional markets. Again, these sorts of issues should be found during subsector analysis.

Government Partnership: Identifies relevant governmental agencies and their policies and details potential working partnerships and areas where policy changes would assist smallholders.

Partnership Development: Identifies partners and strategies to work together with partners.

Environmental Strategy: Defines strategies to protect the natural resource base and environmental systems.

Socio-cultural Strategy: Defines socio-cultural strategies to ensure that the value chain is

managed according to PRISM principles of societal responsibility.

Logistics:

- Activities and timeline
- Baseline measure and anticipated impact
- Financing, costs and benefits
- Monitoring and evaluation
- Reporting

Phase 3: Implementation and Monitoring

Phase 3 focuses on implementing the intervention as detailed in Phase 2. Monitoring involves regular updates regarding whether the intervention is implemented according to the timeline and budget established in the Intervention Design component.

Phase 4: Evaluation and Adaptation

Phase 4 focuses on evaluating and adapting the intervention to ensure that the market system is functioning as envisioned.

Evaluation is used as a tool for project learning and revising the PRISM methodology. It requires in-depth, regular assessments of the short- and longer-term impacts of the intervention, whether the methodology is a cost-effective means to reach PRISM's poverty alleviation goal, and whether the methodology should be revised based on new learning.