

# National Agricultural Innovation Systems that Work for the Poor

# **Building on the Bolivian Experience** (INIS - ANDEAN CHANGE PROGRAMME)



Final Report - June 2011

















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# Final Report ANDEAN CHANGE PROGRAMME

## 1. BACKGROUND INFORMATION

Title of Research Programme: National Agricultural Innovation Systems that Work for the P	oor.
Building on the Bolivian Experience (INIS—ANDEAN CHANGE PROGRAMME)	
Reference Number:	
Period covered by report: 2007-2011	
Name of lead institution and Director: CIAT (International Centre for Tropical Agriculture)	and
CIP (International Potato Centre)	
Project Director: Graham Thiele	
Key partners:	
1. PREVAL (Regional Platform for Evaluation and Systematization Capacity Developmen	it in
Latin America and the Caribbean), Lima, Peru.	
2. PROINPA (Foundation for the Promotion and Research of Andean Products), Cochaban	nba,
Bolivia.	
3. IESE (Social and Economic Studies Institute, Universidad Mayor de San Sim	ón),
Cochabamba, Bolivia.	
4. Papa Andina Program, CIP, Peru.	
5. PBA Corporation, and its regional platform for participatory plant breeding, Conso	rcio
Andino, Colombia.	
6. OFIAGRO, Ecuador.	
7. COLNODO (Strategic Use of Internet for Development), Bogotá, Colombia.	
8. RIMISP (Rural Development Latin American Centre), Chile.	
9. CONDESAN (Consortium for Sustainable Development of the Andean Ecoregion), Li	ima,
Peru.	
Countries covered by research: Bolivia, Peru, Ecuador and Colombia	
Planned Actual	
Start Date: 1 October 2006 1 January 2007	

	Planned	Actual
Start Date:	1 October 2006	1 January 2007
End Date:	1 October 2010	31 March 2011
Total Cost:	£3,570,000 (GBP)	£3,570,000 (GBP)

## 2. SUMMARY

## 2.1 What Andean Change Intended to Achieve

From 2007 to 2010 Andean Change sought to institutionalize participatory research and development methods in National Agricultural Innovation Systems (NAIS) in Bolivia, Peru, Ecuador and Colombia. The purpose was to improve the alignment of market-led agricultural innovation with poverty-reduction and make new agricultural technology more accessible and relevant to the poor. The program took a regional perspective to encourage cross learning.

Andean Change was guided by a strategy cycle that begins with an assessment of demands for participatory methods from NAIS, organizes the provision of appropriate participatory methods, promotes their use by supporting specific cases where they are applied, evaluates outcomes and impacts of their use, improves the methods to make them available as global public goods and finally uses evidence of the impacts of participatory methods to influence public policies. So whilst there could be direct impacts with beneficiaries in the cases, the most significant and lasting impacts were anticipated through work in the policy area<sup>1</sup>.

## 2.2 Outputs and Achievements

Output 1. A set of successful and appropriate participatory methodologies and approaches that favour local development and improved livelihoods for the rural poor are consolidated and widely disseminated in the Andean region through knowledge-sharing among the National Agricultural Innovation Systems (NAIS) of Bolivia, Colombia, Ecuador and Peru.

The Andean Change Alliance was created as a learning alliance, partnering two CGIAR centres, CIP and CIAT, with regional organizations that shared a common vision and assumed responsibilities for leading Thematic Groups, as well as CONDESAN and RIMISP who provided an independent strategic perspective.

Regional Organizations	Thematic Groups
Consorcio Andino de Innovacion Participativa (www.corporacionpba.org/consorcioandino)	Participatory methods
Papa Andina (www.papandina.org)	Agri-business
Asociación Colombiana de Organizaciones no Gubernamentales para la Comunicación Vía Correo Electrónico (COLNODO) (www.colnodo.apc.org)	Knowledge sharing
Regional Platform for Evaluation Capacity Building in Latin America and the Caribbean (PREVAL) (www.preval.org)	Monitoring and evaluation of outcomes and impacts
Oficinas para Estudio del Agro (OFIAGRO), Ecuador	Policy influence

Andean Change compiled an inventory of 81 participatory methods (www.cambioandino.org). including those that: i) link low income farmers to markets, ii) enhance social control over development projects, and iii) stimulate the participation of poor farmers in research. Of the 81 methods, seven were prioritized for wider dissemination because they were well documented and met a clear demand:

- ESF: Empowerment of Smallholder Farmers
- PM&E: Participatory Monitoring and Evaluation
- PMCA: Participatory Market Chain Approach
- ODI: Organizational Development for Innovation

<sup>&</sup>lt;sup>1</sup> Anderson, S. 2009. Output to purpose review of Cambio Andino Programme. Final report. Cochabamba, Bolivia: Alianza Cambio Andino.

- PTE: Participatory Technology Evaluation
- M&B: Participatory Varietal Selection with Mother and Baby Trials
- CIAL: Local Agricultural Research Committee

Direct training in participatory methods involved more than 700 participants. In addition, 50 different capacity building events reached more than 2,000 people and 50 different institutions in Bolivia, Colombia, Ecuador and Peru. More than 65 nationally recognized facilitators for the seven methods were trained using trainers' guidelines (e.g. Antezana et al., 2008).

Andean Change supported 20 cases bringing together the providers of these methods with 17 different requesting partners who wanted to try them out. Providers carried out training and backstopping, and requesting partners implemented the method. Results are published in Thiele, Quiros, et al. (2011). Each chapter includes a protocol of the method, a description of the process, an impact pathway showing how the final outcomes were reached and particular cases of application.

Output 2. A series of at least 10 studies that document the efficacy of participatory methods for improving livelihoods of the rural poor, for use in dialogue leading to pro-poor policy change.

Guidelines were prepared for rigorous qualitative and quantitative outcome and impact assessments of the application of the methods using participatory impact pathway analysis (Alvarez et al., 2009). Twelve impact studies of applying the methods in the cases and two synthesis studies looking at the fidelity of implementation and the validity of the theory of change for PMCA and PM&E and CIAL were published (Horton et al., 2011; Ashby et al., 2011).

The studies showed that very poor farmers were able to take more responsibility for their development. For example, the PMCA not only linked smallholders to markets; it let the farmers communicate, negotiate and innovate with others in the value chain. The methods go to the heart of what Amartya Sen<sup>2</sup> called "Development as Freedom," meaning that development goes beyond pure economic growth which is useful because of what it makes us free to do.

Output 3. Three national policy consultation roundtables functioning in preparation for the establishment of a regional platform. These promote public debate and policy change with respect to improving the inclusion of the poor in agricultural innovation, and using evidence from impact assessments of participatory methods.

The Policy Roundtable was institutionalized in Bolivia where participatory methods are embedded in the recently created National Institute for Agricultural and Forestry research, and made significant progress towards influencing policy in Peru, Ecuador and Colombia. Two working papers document the experience and lessons learned with the policy roundtable in Bolivia and with the institutionalization of participatory methods in NAIS (Uzeda et al. 2011; Ashby, Flores, et al. in preparation).

A web-based Policy Evidence and Argument Bank was developed as a resource for policy influence and advocacy. The Argument Bank included evidence from the impact studies. Six policy briefs on the contribution of participatory methods were prepared and disseminated to regional partners for use in policy incidence.

Partners are continuing to develop a self-sustainable platform to promote participatory methods building on the intellectual and social capital generated to date. Request of freedom to operate was granted from CIP and CIAT.

<sup>&</sup>lt;sup>2</sup> A. Sen. 1999. *Development as Freedom*. Oxford: Oxford University Press.

More effort is needed to make a case for formally incorporating participatory methods into research and extension systems. Andean Change showed that practical demonstration of these methods and rigorous impact assessments were key for political advocacy. Use

Andean Change showed that practical demonstration of these methods and rigorous impact assessments were key for political advocacy.

of the methods alone does not generate the institutional change needed to overcome political obstacles and vested interests. Institutions must make appropriate and proven participatory methods mandatory through policy change if national innovation systems are to work better for the poor.

Output 4. An internet based regional forum for knowledge exchange, with an interactive inventory of participatory methods, associated with practical learning, methods toolbox, capacity building material and impact studies.

An interactive web-based portal offers resources including a catalogue of methods, historical impact studies, the Policy Evidence and Argument Bank, and knowledge systematized with partners (http://www.cambioandino.org/index.shtml). All policy briefs and papers, impact studies and other information produced by Andean Change will also be available for free download. As part of the exit strategy, the web portal will be handed over temporarily to a regional partner (PREVAL) until the end of 2011

Three electronic forums (SEP, CIAL and EPCP) with at least 700 participants were facilitated for exchanging knowledge about using the methods. Andean Change organized a knowledge fair in Bolivia, 2009.

Summing up, Andean Change tested its hypotheses about how participatory methods lead to outcomes and impact with rigorous qualitative and quantitative impact assessments, providing empirical support for policies to reform national agricultural innovation systems. Many agencies adopted the methods promoted because they met farmers' demands. Considerable positive outcomes were achieved although more time is needed to judge final impact. Critics say that participatory methods may work on a small scale for NGOs, but are too labour-intensive, site-specific, costly and unreliable to be replicated reliably. Andean Change has shown that with expert training, participatory methods do produce consistent results across a diverse range of projects without great additional costs. The Andean Change approach to achieving evidence based pro-poor policy change could be scaled out in Sub-Saharan Africa and Asia.

## 3. HIGHLIGHTS OF THE RESEARCH PROGRAMME

Poor farmers' low adoption of technical innovations in agriculture has catalysed an international effort to restructure National Agricultural Innovation Systems to provide a market for pro-poor research and development. Bolivia, Ecuador, Peru and Colombia have made important innovations in establishing national, demand-led agricultural R&D systems and to varying degrees have been incorporating novel participatory approaches. There is a rich and diverse experience introducing participatory approaches in the four NAIS, with varying success in institutionalization, but there is still no coherent picture of how the methods were adapted, the capacity building, institutional policy change and impact on farmer innovation.

In 2007 the Andean Change Alliance started as a four year program, supported by the UK Department for International Development (DFID), to help improve the livelihoods of poor communities by enhancing their participation in innovation. Andean Change is a collaborative regional program in Bolivia, Colombia, Ecuador, and Peru. Andean Change was coordinated by two centres of the Consultative Group on International Agricultural Research (CGIAR): the Tropical Agricultural Research Centre (CIAT: www.ciat.cgiar.org) and the International Potato Centre (CIP: www.cipotato.org). It worked with regional organizations who shared a common

vision and assumed responsibilities for leading Thematic Groups, as well as CONDESAN and RIMISP who provided an independent strategic perspective.

Regional Organizations	Thematic Groups
Consorcio Andino de Innovacion Participativa (www.corporacionpba.org/consorcioandino)	Participatory methods
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Asociación Colombiana de Organizaciones no Gubernamentales para la Comunicación Vía Correo Electrónico (COLNODO) (www.colnodo.apc.org)	Knowledge sharing
Regional Platform for Evaluation Capacity Building in Latin America and the Caribbean (PREVAL) (www.preval.org)	Monitoring and evaluation of outcomes and impacts
Oficinas para Estudio del Agro (OFIAGRO), Ecuador	Policy influence

Andean Change successfully used a novel strategy cycle to improve pro-poor rural innovation, this showed that it is possible to create a market for participatory methods by linking the demand for methods with their provision (i.e. the people who could provide training and backstopping). The strategy cycle begins with an assessment of demands for participatory methods in the national agricultural innovation system (NAIS), organizes the provision of appropriate participatory methods, promotes their use in specific cases, evaluates outcomes and impacts of their use, improves the methods to make them available as global public goods and finally uses evidence of the impacts of participatory methods to influence public policies (Fig. 1). So whilst there were direct impacts with project beneficiaries in the cases supported, the most significant and lasting impacts were anticipated through work in the policy area<sup>3</sup>.



Figure 1. The Andean Change strategy cycle.

<sup>&</sup>lt;sup>3</sup> Anderson, S. 2009. Output to purpose review of Cambio Andino Programme. Final report. Cochabamba, Bolivia: Alianza Cambio Andino.

We consider the achievements in each of the stages of the strategy cycle.

## **3.1** Identify Demands for Participatory Methods

Andean Change involved its partners in identifying demands and opportunities for applying participatory methods with a broad range of stakeholders. The partners met at an initial workshop in June 2007, in Cali, Colombia, to present findings and decide which participatory methods would be used and where (Zapata, 2007).

## **3.2** Organize Supply of Participatory Methods

Andean Change made an inventory of 81 participatory methods (www.cambioandino.org). There are three types of methods: i) those that link low income farmers to markets, ii) enhance social control over development projects, and iii) stimulate the participation of poor farmers in research. Of the 81 methods, seven were prioritized for wider dissemination:

These were:

- ESF: Empowerment of Smallholder Farmers (Empoderamiento de los Pequeños Productores Rurales, EPPR).
- PM&E: Participatory Monitoring and Evaluation (Seguimiento y Evaluación Participativo, SEP).
- PMCA: Participatory Market Chain Approach (Enfoque Participativo de Cadenas Productivas, EPCP).
- ODI: Organizational Development for Innovation (Desarrollo Organizativo para la Innovación, DOI).
- PTE: Participatory Technology Evaluation (Evaluación Participativa de Tecnologías, EPT).
- M&B: Participatory Varietal Selection with Mother and Baby Trials (Selección Participativa de Variedades con Pruebas Mamá y Bebé, M&B).
- CIAL: Local Agricultural Research Committees (Comités de Investigacion Agricola Local)

Each of these methods had a) well-defined and documented protocols, b) a supply of qualified trainers, and c) demonstrated demand from organizations in the region. Detailed instructional materials were produced for the prioritized methods, including guides for training expert facilitators (Antezana et al., 2008).

### **3.3 Promote Use of Participatory Methods that Respond to Demands**

Andean Change supported 20 cases bringing together the providers of these methods with 17 different requesting partners who wanted to try them out (Table 1). The cases were selected using the following criteria:

- 1. Impact potential, for inclusion of the poor
- 2. Experience of requesting partner in rural development
- 3. Experience of provider in training in the method
- 4. Evidence that well defined changes are anticipated through the use of the method and the potential for influencing policy
- 5. Joint investment by requesting partner.

A grant was provided to partners to cover the additional costs of implementing the method. Providers carried out training and backstopping, and requesting partners implemented the method by piggy-backing on an ongoing intervention. All of the activities by Andean Change were implemented with local change partners (projects and organizations in the countries). Farmers' associations were deeply involved in all activities. Andean Change was far from the traditional project, centred on an institution in the CGIAR system.

Case	Method	Context	Country	Supplier	Demanded by
1	SEP	Sustainable agriculture and local potato varieties in Granada and Sibaté, Cundinamarca	Colombia	PROINPA	Asociación Criolla Oro, Sibaté
2	SEP	Area development programs (PDA) Wiñaypaj, Santibáñez	Bolivia	PROINPA	World Vision
3	SEP	San Francisco Assoc., Rumipamba, Bolívar, & Señor de la Justicia Assoc., Shaushi, Tungurahua	Ecuador	IPRA (Investigación Participativa en Agricultura), CIAT	CONPAPA (Consorcio de Pequeños Productores de Papa)
4	SEP & EPPR	Maize and peanuts in the Chaco of Tarija	Bolivia	PROINPA	Continuous Innovation Program (PIC, SDC)
5	SEP & EPPR	Food security farming systems and linking with the market in northern Potosí	Bolivia	PROINPA & PBA Corporation	PRODII
6	SEP & EPPR	Environmental services project in the Comarapa and Quirusilla Basins, Santa Cruz	Bolivia	PROINPA & PBA Corporation	Tropical Agric. Research Centre (CIAT, Santa Cruz, Bolivia)
7	SEP & EPPR	Improvement of agricultural and livestock production in Ravelo, Potosí	Bolivia	PROINPA & PBA Corporation	Instituto Politécnico Tomás Katari (IPTK)
8	EPT	Technology for hand-harvesting coffee	Colombia	IPRA-CIAT	National Federation of Coffee Growers of Colombia (FEDECAFÉ)
9	EPT	Bio-fortified Andean beans, Rionegro, Antioquia,	Colombia	IPRA-CIAT	CORPOICA (Corporación Colombiana de Investigación Agropecuaria)
10	EPT	Bio-fortified Andean beans, Santa Cruz,	Bolivia	IPRA-CIAT	Univ. Gabriel René Moreno (UGRM) Vallecitos Station
11	M&B	Selecting advanced potato clones with a value chain focus, Huancavelica	Peru	CIP	Grupo Yanapai, INIA Universidad para el Desarrollo Andino- Huancavelica (UDEA), Empresa "Semillas del Peru", y groups of farmers from Huancavelica and Junín
12	M&B	Selecting potato varieties with a value chain focus, Granada, Cundinamarca	Colombia	CIP	Universidad Nacional de Colombia & PBA Corporation
13	DOI	Developing improved varieties of broad beans ( <i>haba</i> ), highland farmers' organizations	Peru	PBA Corporation	National Agricultural Innovation Institute (INIA)
14	EPCP	Sustainable production and transformation of yam on the Atlantic Coast	Colombia	Papa Andina	ASOMUDEPAS (Asoc. Muni. para el Desarrollo Sost. de los Pequeños Agricultores de S. Jacinto)
15	EPCP	Native potato value chain in Chimborazo	Ecuador	Papa Andina	Fundación MARCO
16	EPCP	Special coffee, Tarapoto	Peru	Papa Andina	ITDG (Intermediate Technology Development Group)
17	EPCP	Dairy chain, Cajamarca	Peru	Papa Andina	ITDG
18	EPCP	Production chain of temperate fruits, Vallegrande,	Bolivia	PROINPA	CIAT/Santa Cruz, Bolivia
19	EPCP	Native potatoes in northern Potosí	Bolivia	PROINPA	CAD (Centro de Apoyo al Desarrollo)
20	EPCP	Milk and cheese in Challapata, Oruro	Bolivia	PROINPA	Fundación SEDERA
		Oluio			

## Table 1: Supply and demand of participatory methods: Andean Change case studies

Andean Change led three study tours on participatory methods. The first on the Participatory Market Chain Approach (PMCA), in April 2008, where information was shared on experiences with PMCA in the traditional, freeze-dried potato (chuño and tunta) market chain. The study tour was held in La Paz, Bolivia, with organizations from Peru, Colombia, Ecuador, and Bolivia. The second study tour was held in Colombia during October 2008. The Participatory Methods thematic group taught the method for empowering smallholder farmers (ESF) to 17 people representing farmers and technical personnel. Figure 2 shows the impact pathway for the PMCA.

## 3.4 Evaluate Outcomes and Impacts of Participatory Methods

The Impact team produced guidelines to evaluate impact processes, outcomes and the impact in each of the cases (Alianza Cambio Andino, 2010; Alvarez et al., 2009; Delgado and Arévalo, 2009).

Andean Change contributed to developing an approach called "participatory impact pathways analysis (PIPA)" where stakeholders meet early in the project to discuss the impacts their work will have and to visualize how that will happen using a shared theory of change or impact pathway. This gives them a tool to later compare the impact of the project with their earlier predictions and assumptions and to monitor the expected outcomes



Andean Change produced evidence of participatory methods to inform policy debate.

(Alvarez et al., 2010). In this case the impact pathways described were of the participatory method (Fig. 2). The process included the creation of a "*Guide for monitoring outcomes and systematization of processes of the use of participatory methods*" for the regional teams to do the monitoring of the 12 cases (Delgado and Arévalo, 2009).

To begin the evaluation process, the Impact team led 12 base line studies: five in Colombia and Peru, and five in Bolivia (see references in "base line studies" in Annex 5). The information from these studies was incorporated into 12 impact studies (see also "impact studies" in Annex 5).

Andean Change used PIPA to monitor and evaluate outcomes and impacts of all participatory methods in the four countries. The team compared the changes which actually occurred in each case to the changes the stakeholders imagined at the beginning, focusing on the participatory method used. For example, in the original PMCA protocol, private sector market champions drive innovation processes. Some cases showed evidence of significant infidelity as values and attitudes of the partners led to departures from protocol, e.g. focusing on the farming communities rather than on market demand (Thiele, Quiros, et al., 2011).

*Research on social capital and empowerment.* As part of the research on the PM&E cases in Bolivia, 587 household surveys were processed. This PhD thesis research seeks to identify how the participatory methods contributed to empowerment and self-determination to bring about the development and well-being of less-favoured groups (Polar, in preparation).



Notes: MC = Market chain, MCA = Market chain actor

Figure 2. Impact pathways for the PMCA

## 3.5 Improve Participatory Methods and Make Them Available as Global Public Goods

The communication strategy was based on teaching participatory methods to partners on demand and working with the partners as they used the methods with groups of beneficiaries, who were smallholder farmers. Andean Change helped the partners document the results (evidence of outcomes) and share the evidence through regional knowledge fairs, electronic forums and policyoriented debates, in order to influence policy in the national agricultural innovation systems.

Andean Change developed an interactive website to communicate and exchange information about the project and provide partners and interested third parties a tool to share their experiences. With the regional partner COLNODO, Andean Change kept its website constantly updated (www.cambioandino.org).

Andean Change designed two courses on blended learning and placed them online (www.cambioandino.org/cursos/). They were Andean Change's first experiences using ICTs for training.

In coordination with the areas of Participatory Methods and Impact on Policies and the Universidad Javeriana, the First international Forum "Participatory Practices for Innovation and Rural Development" was held In Bogotá, Colombia on December 2009.

An electronic forum was held on November 2008 on the *Participatory Market Chain Approach: Innovation and Development in the Andes.* More than 400 people from 11 countries participated. In coordination between the Areas of Participatory Methods and Knowledge Exchange, an electronic forum on PM&E was held for Latin America, in which more than 300 people participated during four days. A third electronic forum was held on the CIAL (local agricultural research committee) method, with 186 people.

A model (**Bank of Arguments**) has been recently finalized to make available the evidence of the application of participatory methods and has a space on the Program's Web page.

## 3.6 Use Evidence from Evaluation Results to Influence Policy

As the policy area was set up RIMISP conducted an assessment of four different market chains and their innovation contexts (Escobar et al., 2008):

- Groundnuts in Bolivia
- Potato in Ecuador
- Milk in Cajamarca, Peru
- Yam in the Pacific Coast of Colombia.

This study provided an overview of demands, priorities and modalities of operation of SNIAs paying particular attention to the demands and priority of the poor small farm sector. It also analysed the principal policies supporting rural development and their respective instruments, projects and programs.

Andean Change created Policy Roundtables in the four countries, wrote seven policy briefs and a *Guide for Implementing, Monitoring and Evaluating Policy Impact used to implement the Roundtables* (see Rotondo and Delgado, 2009 under "training material" in Annex 5). This guide was co-financed with ILAC (Institutional Learning and Change Initiative, http://www.cgiar-ilac.org/index.php?section=1) which considered Andean Change a learning lab for policy change (http://www.cgiar-ilac.org/content/andean-change-cambio-andino). This made Andean Change and its work more widely known within the CGIAR system and helped to achieve international coverage of the regionally produced public goods.

Andean Change organized its evidence for participatory methods from the impact studies and elsewhere in a novel, on-line Bank of Arguments which could be used for advocacy with policymakers, to convince them that participatory methods are functional and feasible. In Bolivia, the National Policy Roundtable is continuing after the end of Andean Change. The Bolivian, Colombian, Ecuadorean and Peruvian national agricultural research programmes included several of the participatory methods in their staff training. A method that borrows from experience with Andean Change has been institutionalized on a national scale in Ecuador with the National Policy Roundtable. In Peru, a regional coffee value chain has adopted the PMCA method, forming a multi-actor platform for strengthening small farmer participation. The National Coffee Growers Federation (*Federación Nacional de Cafeteros, Federacafe*) of Colombia institutionalized the PTE method for technical innovation (Uzeda et al., 2011).

Based on collaborative work between the Impact and Policies thematic areas, Andean Change prepared two documents: "*Guide for Monitoring and Evaluating Policy Incidence*" (Rotondo and Delgado, 2009) and "*Guide to Prepare a Policy Incidence Plan*". The first one was validated among the national partners and representatives of the thematic areas during a Policy Incidence Workshop. The instruments described in the Guide help systematize interviews, activities and actions of policy impact in each country. The area received support from ILAC for developing these guides.

Andean Change and INIAF (National Agricultural and Forestry Innovation Institute) in Bolivia codeveloped and co-financed a forum-workshop on the contribution of participatory approaches as tools for food safety and sovereignty. As a result of the workshop, progress was made in a *National Training Program* in five participatory methods for INIAF, where institutional channels were identified for an effective response to smallholders' demands for rural innovation. INIAF indicated that it could finance most of the costs, thus showing real demand and commitment to integrating the policy roundtables in their annual work plans.

Andean Change policy strategy was to create four steering groups to influence policy at the national level. The 4 national steering groups evolved into a team of four political and regional liaisons regionally coordinated by the Policy Area that could be more effective in influencing NAIS and regional level policy. In Bolivia the roundtable started with ten members, but ended with about 30, including representatives from government, from civil society and farmers' organizations, from national research and from international cooperation. The roundtable met four times, over a year and a half, and at the last meeting expressed a desire to continue meeting, to strengthen the innovation system, including INIAF (Uzeda et al., 2011).

Andean Change finalized a document about *Analysis of the Political Context in Bolivia* and three *diagnoses of the national agrarian conditions* in Ecuador, Peru and Bolivia (Flores, 2010a, b; Uzeda et al., 2011). Andean Change has several other policy papers in progress (see Annex 5).

## 3.6.1 Cases of participatory methods: process, outcomes, and impacts

In this section of the report we explain in more detail what was achieved in the cases of participatory methods where were supported.

*The six main methods* promoted by Andean Change are discussed below.

Participatory Market Chain Approach (PMCA). This method invites smallholders and other members of the value chain (processors, buyers, restaurateurs and others) to sit around the table together and explore new market opportunities. Through a facilitated three phase process this leads to the creation of commercial, technical and institutional innovations. During this process, the facilitators gradually withdraw, until the actors themselves trust each other well enough to continue working together, and are stimulated by their successes to keep working together. The actors find new market opportunities and exploit them in a way that benefits everyone. On the



Sitting around the table together builds trust. A restaurant owner in Oruro, Bolivia, shares pizza baked with mozzarella made by a farmers' organisation.

third and final event they launch a new commercial product on the market (e.g. a new type of cheese, a blend of coffee or fresh, bagged produce).

*Participatory Varietal Selection with Mother and Baby Trials (M&B).* This plant breeding method allows researchers to see what farmers, and other actors on the value chain, look for in a new potato variety. They start with between five and twenty new clones, and over three growing seasons, narrow down on one or a few that farmers and others like, looking at different attributes of how the potatoes grow, how they sell and how they taste.

*Organizational Development for Innovation (ODI)* is designed to strengthen rural organizations. The method helps a group of farmers define the type of organization they need, taking into account their needs, promoting appropriate leadership and self-development, based on the principles of adult education.

*Participatory Monitoring and Evaluation (PM&E)* is a method that contributes to the sound management of community projects by strengthening the grassroots organizations. During the project, the PM&E invites participants to see where they are going and to judge when it is time to make changes in the objectives they have set. They use simple methods (like tables of happy faces and sad ones) to mark their satisfaction with the project and how it is coming along. They critique the extensionists or other project facilitators, who use this positive feedback to adapt their work, to ensure that most people, including the project facilitators, are pleased with the results.

*Participatory Technology Evaluation (PTE)* offers a set of tools and procedures to help farmers express their judgments about a new technology, by identifying the farmers' agronomic, economic and cultural criteria, and weighing each one. This information lets the scientists learn about the farmers' judgments of the prototype technology and make changes before releasing it.

*Empowerment of Smallholder Farmers (ESF)* teaches smallholders to play a greater role in local development. It raises their self-esteem and self-confidence, and strengthens their abilities to develop as they wish to. It improves their autonomy and *their management skills*. The ESF promotes values of solidarity, teamwork and strengthening farmer organizations so that smallholders assume ownership of their projects and their development.

## 3.6.2 Participatory Monitoring and Evaluation

Andean Change used the PM&E method, designed to be an evaluation carried out by beneficiaries. PM&E was developed in Honduras and Colombia, tested in several other Latin America and African countries and subsequently adapted for the Andes (Ashby et al., 2011). In Yacuiba, Bolivia, in October 2008, twelve people from six organizations of Bolivia, Colombia, and Ecuador participated in a study tour on participatory monitoring and evaluation.

The purpose of PM&E is to strengthen farmer organizations (large or small). Even the nonliterate can practice PM&E by using the evaluation forms which display three to five little faces with different expressions (happy to sad). These forms are the central tool of PM&E.

PM&E enables a group of farmers to establish their own objectives for an evaluation, to plan it by defining their own milestones. PM&E also is used by the leaders of a farmer organization or by managers of a Project or an agency. It was first used with farming, but can be applied to marketing, health, education or any kind of service provision.



PM&E requires a trained facilitator who accompanies through one cycle of evaluation. PM&E can be taught in a one week workshop. Then it is necessary to have at least two visits by the trainer to observe the facilitator in the field and help solve his or her problems. Visit by the trainer should also devote time to reinforcing the skills of the PM&E Committees or teams or promoters (ibid).

PM&E is carried out with a group that has common interests and can define a shared goal for a PM&E Committee to take over the process from the facilitator after the first cycle of evaluation. Usually the facilitator is the same field extension agent whom the farmers evaluate in the first cycle of evaluation. Community members who evaluated a project by IPTK, a local institute in Ravelo, Bolivia, improved their relations with staff members (ibid). As one villager said:

"The institution IPTK listens to our suggestions that emerge from the PM&E evaluations" and we have better communications and information between us and IPTK...Recommendations that emerge from PM&E evaluations are heard and accepted by IPTK. After our analysis with the "faces" form and we give our recommendations, a copy is given to the extension agent so he can inform the institution" (Paz Ybarnegaray et al., 2011a).

Andean Change used PM&E (Participatory Monitoring and Evaluation) to evaluate a native potato project in Colombia, and a maize and peanut project in the Bolivian Chaco. Andean Change also used PM&E with a farmers' organization in Ravelo, Bolivia and with a native potato project in northern Potosí, Bolivia. Andean Change combined the PM&E with methods for improving personal esteem and communication (from the PBA Corporation in Colombia).

The experiences showed that PM&E is a useful tool for improving accountability of service providers, but only if the service providers are willing to be evaluated by rural communities. For example in the case of the Chaco, the departmental government withheld funds so that the project could not buy machinery they had promised the farmers, who vented their frustration in the PM&E workshop although there was little or nothing the field staff could do to get the equipment. On the other hand, the NGO PRODII (Programa de Desarrollo Integral Interdisciplinario), in northern Potosí was willing to accept constructive criticism, and the PM&E helped them improve their extension approach.

Andean Change adapted the PM&E in several ways during the project. For example, they made it appropriate for low-literate, Quechua-speaking communities in the Andes (by using more drawings, less text). Andean Change found that a committee is not necessary for carrying out the PM&E evaluation. An individual member of the rural community can also perform PM&E, and give useful feedback.

In the Bolivian Chaco, PM&E stimulated farmers to demand that election promises be kept. PM&E first improved farmers' self esteem and their confidence to make demands on service providers. Then, as a result of PM&E evaluations, the farmers' organizations learned the details of the development project and began demanding the farm machinery promised by the prefecture (Ashby et al., 2011).

In Northern Potosí, Bolivia, the NGO PRODII had always used participatory methods, but the PM&E helped them to become even more attentive to farmers' concerns. Mr. Mario Mamani Sola mentions: "When we formulate recommendations, suggestions or criticism that have previously been approved by the majority of farmers in the group; PRODII believes us more than their technical field staff". The farmers found PM&E so useful



SEP helps local people articulate their goals. These farmers in the Bolivian Chaco want "a more organized group so we can receive more projects".

they began applying it not just to PRODII, but to their own organization and themselves.

Before PM&E, technical staff wrote PRODII's project reports. Now, PRODII receives feedback from the farmers' evaluations delivered. By 2009 people extrapolated the PM&E to the newly created Municipal Councils for Development (CDMs), a kind of municipal oversight committee. In the district of Uma Uma CDMs are using PM&E to control responsibilities of the municipality on education, health and other activities (Ashby et al., 2011). In the Bolivian Chaco, local people trained in PM&E are applying the method to evaluate construction companies working in their area. Farmers trained in PM&E in Granada, near Bogotá Colombia, showed the method to farmers in Fómeque, who began using PM&E in their activities.

In sum Andean Change was able to demonstrate the utility of SEP as a way of improving governance by increasing transparency and accountability within farmer organizations, in relationships between these organizations and their service providers whether these are NGOs or public sector and in several cases, providing farmers with tools to exert effective demand on decentralised local government for quality services. SEP also proved effective in harnessing voluntary contributions from community leaders who act as promoters, expanding the reach of technical assistance to remote, marginal populations and making local leaders more accountable to the members of farmer organizations.

## 3.6.3 Linking small farmers to markets

National and local organizations affiliated with Andean Change experimented with the "Participatory Market Chain Approach (PMCA)," action-research designed to: (a) identify business opportunities in market chains that are important to small farmers; and (b) develop economically viable ways to exploit these opportunities and benefit small farmers as well as other market chain actors. The PMCA brings diverse stakeholders together to identify and exploit new business opportunities. Facilitation improves communication, builds trust, and fosters joint activities that stimulate commercial, technical, and institutional innovation. Andean Change used PMCA to develop and market: high-quality coffee (San Martin, Peru), mozzarella cheese (Oruro, Bolivia), native potatoes (Northern Potosi, Bolivia and Riobamba, Ecuador), and yams (North Coast of Colombia) (Horton et al., 2011).

## Case 1. Developing a local market for high-quality coffee (San Martin, Peru)

Peru's San Martin province produces some of the best coffee in the world. Yet the region has no

"coffee culture." People consume little coffee, and most of what they do consume is imported instant coffee. The international NGO Practical Action (formerly the Intermediate Technology Development Group, ITDG) has worked in Peru's San Martin department for more than a decade to promote sustainable and equitable development of the coffee industry. Until recently, virtually all efforts focused on improving production and post-harvest practices for export coffee. Beginning in 2006, Practical Action and local partners applied the PMCA to promote development of the local market for locally produced coffee. The PMCA was applied over a period of 16 months, from June 2007 – October 2008. Public events held at the end of each phase of the PMCA attracted 70 or more participants representing different links in the market



Bringing out a new brand of coffee instils regional pride in Peru.

chain as well as governmental and non-government research and development organizations. Results of the PMCA exercise included enhanced knowledge and skills for producing and processing high-quality coffee, improved relations among market chain actors, and a new brand of coffee sold on the local market. Since completion of the PMCA exercise in 2008, several new brands of coffee have appeared in local and regional markets, and an association of the artisanal coffee processers who produce these new brands has been established. A recent event to promote the new local brands of coffee attracted the Regional President, other "VIPs," local radio, TV and newspapers, and about 500 members of the public.

### Case 2. Developing and marketing a new cheese (Oruro, Bolivia)

The Oruro department is on Bolivia's altiplano where agriculture is dominated by extensive livestock production on semi-arid high, flat grasslands. Agriculture and livestock herding are challenged by the region's cold, dry environment, and rural population density is low. Over the past 30 years, development of micro irrigation has stimulated small-scale cropping and dairy herding near the capital city, Oruro. The Danish International Development Agency (Danida) and other development organizations – both foreign and national – have encouraged and supported farmer self-help groups that operate communitybased dairy processing plants. Dairy specialists



who worked in aid programs have established a foundation (Sedera), linked to the departmental federation of dairy producers. This group now offers technical services and support to small herders and dairy processors. From October 2007 to April 2009, Sedera and local partners applied the PMCA with the goal of diversifying the products produced and marketed by community-based dairy plants. One focus of the exercise was to develop a new mozzarella cheese product, to supply pizzerias in Oruro city.

The exercise faced several obstacles. It was difficult to bring stakeholders together in face-to-face meetings, in part because small herders are scattered over the rural landscape, often in remote locations. Midway through the PMCA exercise, the farmers' organization that was originally involved withdrew and had to be replaced by another organization. Perhaps the most fundamental obstacle was the marginal, low-yielding nature of local dairying and the resulting high cost of locally produced milk, which makes locally produced mozzarella cheese costly relative to a competing product from Santa Cruz. As a result of the PMCA exercise, Sedera and a local farmers group (Inprolac) were successful in developing a new dairy product that met local quality

requirements and is now being marketed on a small scale in high-end markets in Oruro under the "Vaquita Andina" brand. Due to the high cost of production, the sales and subsequent benefits to small producers so far remain small. One of the main benefits of the PMCA exercise has been the experience gained by Sedera with market-chain innovation processes and the new market-orientation with which it now works. Another benefit has been that members of Sedera and Inprolac now have a much greater awareness of the importance of establishing and maintaining high quality standards for their dairy products. They are applying this principle in their entire menu of dairy products now.



A young woman in indigenous dress offers native potatoes in an upscale La Paz supermarket.

### **Case 3. Conserving and marketing native potatoes** (Northern Potosi, Bolivia)

The main economic activity in Northern Potosi is mining, and most of the region's population is concentrated in mining centres. Agriculture and livestock herding are limited by the region's harsh climate and mountainous topography with small areas suitable for production on valley bottoms and sides. Rural population density is low and the rural population is among the poorest in the country (and in Latin America). One of the region's underexploited resources is the genetic diversity of its native potatoes, which exceeds that found in any other region in Bolivia. The PROINPA Foundation and the Center for Agricultural Development (CAD) have worked for several years to conserve biodiversity in the region's potatoes and other Andean crops and to reduce poverty. From May 2007 to October 2008, CAD and local partners implemented the PMCA to promote the development of markets for the native potatoes produced by small farmers in the region. This effort was backstopped

by PROINPA and Papa Andina. A new potato product branded "Miskipapa" was developed, which consists of selected and washed native potatoes sold in net bags. Miskipapa has been marketed in supermarkets in La Paz and Cochabamba, in the store of a mining union, in two tourist hotels, and in farmers' markets. Results have been mixed, due to limitations in both the supply of native potatoes and the demand for them. During and after the PMCA exercise, CAD has played crucial roles in establishing farmers' organizations, linking them with potential buyers, and assisting with specific market functions. Governmental bodies have stated their commitment to supporting the efforts of farmers' organizations to market their produce, and have offered facilities for processing native potatoes and other Andean crops. However, little governmental support has materialized. After the end of the PMCA exercise, CAD has continued to support the marketing initiative. Participating households have benefitted, but the scale of benefits has been limited by the small volume of native potatoes marketed in the region. Additional benefits have accrued from the increased value attributed to native potatoes in local food systems. Perhaps the most significant outcome of the exercise has been that CAD has shifted its emphasis from production to market development and has strengthened its capacity to support market chain innovation and development among the region's small farmers.

## Case 4. Developing new markets for yams (North Coast of Colombia)

Yams were introduced to the Caribbean region together with the slaves from West Africa. They are now one of the main crops grown by poor farmers on small plots of rented land in the northern coastal region of Colombia. Here, and in other parts of Colombia, the distribution of land holdings is extremely skewed, contributing to rural poverty and conflict. This social milieu, combined with the presence of drug traffickers, led to an eruption of rural violence at the end of the 1990s, which continued for nearly a decade. Despite the extreme insecurity. а few development organizations continued to work in the areas. One was the PBA Corporation, which



In northern Colombia, yam production practices were modified to improve access to local markets.

has worked with small farmers in participatory agricultural research and development projects related to yams and other crops for nearly 30 years. In 2006, the PBA Corporation launched an exercise to improve the marketing of small farmers' commodities in the region, and it incorporated the PMCA into this process. Cambio Andino supported the Corporation's efforts by providing training in the PMCA and backstopping the work with yams. Three potential areas for commercial innovation were identified: production of yam flour for specialty uses in cosmetology and baking; export of fresh yams to the USA; and domestic marketing of selected fresh yams. Applied technical and market research was carried out in these areas, business plans were developed, and new products were pilot tested with potential buyers. After completion of the PMCA exercise, in May 2009, the PBA Corporation has continued to work with local farmer organizations and has supported development of a network of local associations to promote development of yam sector. Some progress has been made to improve the domestic marketing of selected yams. There have also been a few shipments of fresh yams to the USA, but development of this market has been limited by the recent appreciation of the Colombian peso and steep competition from other Caribbean suppliers. There is now interest in testing micro irrigation for off-season production and exports. Commercial testing of yam processing has been hampered by lack of funds for a pilot plant. The PBA Corporation continues to actively seek opportunities to advance the work begun with the PMCA, and has incorporated elements of the PMCA into its portfolio of participatory methods.

### Case 5. Promotion of native potatoes (Riobamba, Ecuador)

Farmers in Ecuador plant more than 400 native potato varieties. Due to the lack of market demand for this type of potatoes and competition from more profitable alternative crops, native potatoes in Ecuador were abandoned by most farmers. The Marco Foundation led one successful application of the PMCA with native potatoes, in the southern highlands of Riobamba, Ecuador. They partnered with the InnovAndes project led by CIP to help a local organization of small potato farmers (Conpapa) to boost production and improve marketing of native potatoes. Three gourmet restaurants in Riobamba started experimenting with native potato specialties and including them in their menu. They established a supply contract with farmers. Four native varieties were promoted in events held as part of the National Potato Day that the PMCA also helped to establish. Conpapa started selling native potatoes to local supermarkets. Now farmers produce native potatoes not only for their own consumption but also as a cash crop. Although volumes are still low, a new market has been created and now local processing industries have included native potato chips.

#### 4. ACHIEVEMENT OF PROGRAMME RESEARCH OUTPUTS AND PURPOSE

Andean Change showed that participatory methods can help the poorest smallholders take active responsibility in determining crucial aspects of their own development. A method like the PMCA not only facilitates the entry of smallholders into competitive markets, but it helps them organize, and empowers them to meet and negotiate with urban based actors in value chains, who in turn gain more insights into the farmers' conditions.

Andean Change showed that Participatory Monitoring and Evaluation gives the poor a tool to hold projects and officials accountable. Participatory research methods like PTE, M&B and CIAL give technical people procedures for including smallholders in managing projects, voicing



opinions and getting their preferences and priorities onto the research agenda.

Andean Change tested hypotheses about the results of participatory methods with outcome and impact studies. The idea was to create hard, numerical evidence to convince policy makers to reform national agricultural research systems, to prove that the participatory methods are viable. Andean Change showed that with competent training, participatory methods can achieve replicable and cost-effective results (see Table 2).

More work is needed to make participatory methods a formal part of national and international innovations systems. But Andean Change has shown that a key step is a practical demonstration of the methods, followed by a solid impact study which provides the data to convince decision makers. Simply using the methods isn't enough to change policy.

Perhaps Andean Change's greatest contribution was to show that appropriate and proven participatory methods must be made mandatory by policy change if national innovation systems are to serve the poor. Arguments in favour of pro-poor methods must be based on evidence of their impact in order to foster policy change.

#### 4.1 What are the Research Outputs?

#### 4.1.1 Participatory methods were tested and validated

PMCA (Participatory Market Chain Approach) was applied and validated in five cases (dairy in Bolivia, native potatoes in Bolivia and Ecuador, yam in Colombia and coffee in Peru). These experiences helped mature the method, which had been used previously for working with native potatoes in Bolivia and Peru. By expanding to other countries and other value chains, Andean Change showed that the PMCA was a versatile, flexible method.

Participatory Monitoring and Evaluation (PM&E) was successfully applied in 3 projects in Bolivia, one in Ecuador and one in Colombia. These cases demonstrate that PM&E can be applied in a broad range of local government and private organization initiatives that go from production to education, health and infrastructure. Institutional structures are set to exercise direct influence over local governments and organizations in order to ensure the achievement of objectives and activities compromised for the population. In a country where social movements have developed enough strength to complain and to change governments, such as Bolivia, the possibility of having a tool to exercise educated demands and control while at the same time making people co-responsible for processes taking place in their area of work, is of great practical importance.

Proposed Outputs	OVIs	Progress/Achievements	Recommendations/ Comments
Output 1. Consolidation and broad dissemination of at least six appropriate participatory methods and approaches that favour local development and improvement of the livelihoods of the rural poor in the Andean Region, through the sharing of knowledge among the national systems of agricultural innovation (NAIS) in Bolivia, Colombia, Ecuador and Peru.	As listed in the research programme log frame, by December 2006 national partners in the Andean region have joined the international steering committee and have had a Project Launch Workshop to plan regional activities. The regional team for this output has been formally constituted and is implementing the work plan. An inventory of experience with participatory approaches has been conducted in each of four NAIS. By 2008 a set of at least 6 participatory methods have been validated and experience with their institutionalization exchanged 1.5 By 2008 at least 30 nationally recognised trainers will be training others in participatory methods in the Andean region. 1.6 In March 2009, at least 5 methods have been customized by at least 3 partners in other countries of the Andean region as a result of the exchange of knowledge that took place among them.	<ul> <li>1.1. Achieved. National partners</li> <li>joined the steering committee and</li> <li>held a launch workshop in Cali (see</li> <li>workshop report in V. Zapata, 2007)</li> <li>1.2 Achieved. Andean Change</li> <li>created the Participatory Methods</li> <li>and the Agribusiness Areas as part</li> <li>of the program's structure. Both</li> <li>Areas were responsible for</li> <li>implementing the cases, each under</li> <li>the responsibility of a regional</li> <li>partner. The members of the</li> <li>regional team continue to interact in</li> <li>cross-training and developing</li> <li>project proposals together.</li> <li>1.3. The Andean Change website</li> <li>includes an inventory of 81</li> <li>participatory methods in an</li> <li>interactive catalogue where users</li> <li>can upload new methods, and</li> <li>contact the suppliers of methods.</li> <li>Six participatory methods (EPPR;</li> <li>EPCP; EPT; M&amp;B SEP; DOI) were</li> <li>validated and disseminated via the</li> <li>web portal.</li> <li>1.4. Training and 20 case studies of</li> <li>methods (see table below). These</li> <li>cases were implemented with a</li> <li>diverse range of 17 partners who</li> <li>demanded new methods. There was</li> <li>more demand and investment in</li> <li>validating some of the methods</li> <li>(EPCP and SEP) each in 7 cases.</li> <li>Two more methods, CIALs and</li> <li>multi-stakeholder platforms, were</li> <li>also promoted.</li> <li>1.5. CIAL, SEP and EPCP were</li> <li>included in training events with the</li> <li>Universidad Técnica de Oruro (a</li> <li>certificate for 18 technical</li> <li>professionals).</li> <li>EPCP and CIAL were taught to</li> <li>INIA (Instituto Nacional de</li> <li>Innovación Agraria) of Peru to 25</li> <li>staff members from three regional</li> <li>offices</li> <li>CIAL was taught to the Ministry of</li> <li>Agriculture in Colombia (22</li> <li>technical staff in five departments).</li> <li>1.6. Andean Change fully and</li> <li>successfully implemented 5 different</li> <li>methods in 5 cases</li></ul>	The evidence base produced will continue to inform policy debate after the project has finished. To make use of material published in English and to reap the full benefit of this investment, DFID should consider how to use the book of impact studies and the innovative Policy Evidence and Argument Bank beyond the Andes.

## Table 2. Summary of Andean Change's proposed outputs and achievements

			<b>Recommendations</b> /
Proposed Outputs	OVIs	<b>Progress/Achievements</b>	Comments
Output 2. A series of	2.1 In 2006 the regional pro-	2.1 Achieved. The Outcomes and	
at least 10 studies that	poor impact assessment	Impact Area was constituted in	
document the efficacy	team was formally	2007 as part of the Program's	
of participatory	constituted and is	structure under the leadership of a	
methods for improving	implementing the work plan	regional specialized partner	
the livelihood of the	for this output.	(PREVAL).	
rural poor in the	2.2 Impact assessment study	2.2 Impact assessment workshops	
Andean Region, for	workshops were held by the	were held in 2007, 2008, 2009 and	
use in dialogue leading	regional team in years $1-3$ .	2010.	
to pro-poor policy	2.3 In 2008 at least 10 studies	2.3 Two working papers (and	
change	available, documenting the	subsequent journal articles) in	
	application and institutionalization of	English that review the outcomes and lessons from implementing	
	participatory, local	three of the methods (EPCP, SEP	
	development and livelihoods	and CIALs) are available.	
	methods in the Andean	2.4 Findings from the case studies	
	region.	were used to prepare six policy briefs	
	2.4 In 2009 evidence	and have been entered into a policy-	
	available documenting the	oriented database (the Policy	
	impact of the	Evidence and Argument Bank).	
	institutionalization of	2.5. A set of 12 studies of the	
	participatory methods on the	outcomes and achievements from	
	inclusion of 30 to 50% more	applying the participatory methods,	
	poor farmers in targeted	based on quantitative baselines and	
	NAIS projects.	follow up surveys, will be published	
	2.5 In 2010 at least 3	(Thiele, Quiros, et al., 2011).	
	documented cases available	2.6. Three guides have been	
	of pro-poor policy dialogue	developed: a) to assess outcomes	
	in national innovation	and impacts of participatory	
	systems using evidence	methods, b) to systematize	
	from the project	processes of applying participatory	
	2.6 In 2007 an instrument	methods, and c) to monitor	
	available which facilitates the	evidence-based policy roundtables.	
	documentation and		
	systematization of evidence		
	about the contribution of		
	research to policy formulation.		
Output 3. (Revised	3.1 In 2009 three national	3.1 The Policy Roundtable was	
during the OPR) Three	Policy Steering roundtables	institutionalized and continues to	
national policy	have been formed that	operate in Bolivia and made	
consultation	include experts with a	significant progress in Peru,	
roundtables set up and	strategic vision and the	Ecuador and Colombia, where	
functioning (in	capacity to develop and	evidence-based arguments were	
Bolivia, Ecuador and	influence policy in the	debated with universities and NAIS	
Peru or Colombia) in	Andean NAIS.	representatives to influence policy.	
preparation for the	3.2 By 2008 a regional	3.2 The Policy Area was part of the	
establishment of a	policy influencing team is	Program's structure and defined an	
regional platform. The	established and starts	evidence-based strategy to influence	
roundtables and	developing capacity of the	policy. Andean Change prepared a	
subsequently the	Alianza staff and national and regional partners to	method and a handbook on planning	
regional platform are	• •	to influence policy incidence. The	
to promote public	achieve pro-poor policy influence.	handbook was used for training with	
debate and policy change to improve the		partners.	
inclusion of the poor	3.3 By 2009 there is public	3.3 A web-based Policy Evidence and Argument Bank was developed	
in agricultural	debate using the evidence from the impact assessment	as a resource for policy influence and	
innovation, and using	studies in at least two	advocacy. The Argument Bank	
evidence from impact	countries.	includes evidence from Andean	
e nuence nom impact	countries.	menudes evidence from / meduli	<b>I</b>

			<b>Recommendations</b> /
Proposed Outputs	OVIs	<b>Progress/Achievements</b>	Comments
assessments of	3.4 By 2010 documented	Change cases with participatory	
participatory methods.	changes in attitudes,	methods.	
The roundtables and	believes and behaviour of	Six policy briefs were prepared and	
platform will consist	decision makers with regard	disseminated to regional partners for	
of a range of	to the efficacy of	use in policy incidence.	
stakeholders drawn	participatory methods.	3.4. Two working papers document	
from the national	3.5 By the end of 2010 there	the experience and lessons learned	
innovation systems	are proposals to formulate	with the policy roundtable in Bolivia and with the institutionalization of	
(incl. NARs, producer	or re-formulate norms, decrees, and/ or research	participatory methods in NAIS.	
groups, NGOs and the private sector).	protocols that commit	3.5. The policy papers document	
private sector).	institutions and resources to	evidence of achievements in	
	the deployment of	advancing norms and policy to	
	participatory methods.	institutionalize participatory methods.	
	3.6 A proposal developed and	3.6. A concept note was put forward	
	agreed with Alianza member	by CONDESAN, a regional partner,	
	organisations and partners for	and submitted to DFID but was not	
	the establishment of a	approved. Partners are having	
	regional platform and the	informal conversations on how to	
	institutionalisation of a	develop a self-sustainable platform to	
	process to arrive at a new	promote participatory methods.	
	regionally owned project	Request of freedom to operate was	
	corresponding to the aims of	granted from CIP and CIAT.	
	Andean Change.	6	
Output 4. An internet	5.1 In 2007 the information	5.1 Achieved. The Knowledge	
based regional forum	and knowledge sharing	Sharing Area was constituted in 2007	
for knowledge	regional team was formally	as part of the Program's structure and	
exchange, with an	constituted and is	resources were assigned to develop	
interactive inventory	implementing the work plan	the strategy.	
of participatory	for this output.	5.2 Achieved. May 2008.	
methods, associated	5.2 A workshop with	5.3 An interactive web-based portal	
with practical learning,	partners from the Andean	offers resources including a catalogue	
methods toolbox,	region planned the south-	of methods, historical impact studies,	
capacity building	south knowledge-sharing	the Policy Evidence and Argument	
material and impact	activities in Stage 1.	Bank, and knowledge systematized	
studies.	5.3 An interactive, internet-	with partners. http://	
	based forum established that	www.cambioandino.org/index.shtml	
	promotes exchange of	5.4 Three electronic forums (SEP, CIAL and EPCP) with at least 700	
	experience and documents developed by project	participants were facilitated for	
	partners, widely circulated in	exchanging knowledge about using	
	electronic and print form and	the methods. Andean Change	
	in Spanish and English over	participated in at least one knowledge	
	the course of the project.	fair, in Cali, 2010, and organized one	
	5.4 By 2008 a regional	in Bolivia, 2009.	
	knowledge sharing workshop	5.5. A book with the experience in	
	and virtual exchanges	12 cases is being published and	
	between Andean partners	summarizes the knowledge sharing	
	have enhanced innovation	strategy. The book will be available	
	with participatory approaches	on the web-portal for free download	
	in the NAIS via knowledge-	as pdf file. All policy briefs and	
	sharing techniques (e.g.,	papers, all impact studies and all the	
	knowledge fairs, peer assists,	information produced by the	
	and collaborative software),	Andean Change Program will also	
	starting in Stage 2.	be available to download from the	
	5.5 In 2010 the project's	web page for free. As part of the	
	experience with its strategy	exit strategy, the web portal will be	
	for south-south knowledge	handed over temporarily to a	

Proposed Outputs	OVIs	Progress/Achievements	Recommendations/ Comments
	sharing is published using results from the Andean NAIS about the pro-poor impact of the project's methods, their own adaptations of these and the	regional partner (PREVAL) until the end of 2011. If necessary, the web portal will remain linked through CIAT and CIP websites afterwards.	Comments
	policy change needed to institutionalize them in national innovation systems.		

Andean Change used Participatory Technology Evaluation to make significant improvements on a coffee harvesting tool with the National Coffee Research Centre (CENICAFÉ) in Colombia. Andean Change adapted the Mother-&-Baby method, which was originally designed to test maize and other cereals; Andean Change created and tested protocols for using M&B to test promising potato clones in Colombia and Peru.

Andean Change contributed to improve the effectiveness of the methods by developing impact pathways for each of them (how outcomes and impacts can be achieved) and protocols to guide their implementation (steps that need to be followed to implement the method with fidelity).

## 4.1.2 M&E strategy developed

The cases applying participatory methods were validated with project stakeholders, using another participatory method, PIPA (Participatory Impact Pathway Analysis). Andean Change adapted the original PIPA framework<sup>4</sup> to monitor and evaluate the effect of the use of participatory methods in given contexts. For example, the combination of PIPA and outcome mapping, incorporating theories of change, demonstrates methodological innovation and progress within the sphere of monitoring and evaluation. This development has wider significance and utility than assessing agricultural innovation. It is also innovative, since previously PIPA had been used mostly to track outcomes and impacts of projects, not the methods used to implement them.

## 4.1.3 Communication and dissemination strategies and tools

Andean Change designed and implemented an information, communication and knowledge exchange strategy to consolidate a learning community on participatory methods. The strategy was based on a basic concept: *"The exchange of knowledge and information through social, physical and virtual networks"* (see Fig. 3).

The strategy included: a) generating contents and sharing them with different audiences and actors (documentation and systematization, and media) b) design, develop and implement tools to exchange information and knowledge, both face-to-face and virtual, c) strengthen capacities to generate information and knowledge (e.g. documenting experiences, using Andean Change's web tools and others), d) information and communication for policy change.

<sup>&</sup>lt;sup>4</sup> Douthwaite, B., B. S. Alvarez, S. Cook, R. Davies, P. George, J. Howell, R. Mackay and J. Rubiano (2007). "Participatory Impact Pathways Analysis: a practical application of program theory in research-for-development." *Canadian Journal of Program Evaluation* **22**(2): 127-159.



Figure 3. Andean Change's communication strategy.

Andean Change created and shared information on participatory methods for agricultural innovation in the Andean region. This involved implementing the methods and then conducting follow up on the outcomes and impacts, documenting the experiences, collecting evidence, generating a data base and creating spaces for learning, both in person (e.g. the policy roundtables) and on the internet, in order to influence policy of the national agricultural innovation systems. See the many publications and videos listed in Annex 5.

Andean Change considered the methods as communication strategies engaging different stakeholders. In Peru, coffee processors and coffee growers had never met each other before the PMCA. After visiting each other in their homes and work places, they entered into permanent and empathetic communication which is continuing after the end of Andean Change. The other PMCA cases had similar (if less dramatic) results of enhanced communication. PM&E is explicitly a formal method for communicating feedback from project beneficiaries to staff and others. PTE and M&B both communicate farmers' preferences for new technology or varieties to researchers. Andean Change has published a book for publication, in Spanish (Thiele, Quiros, et al., 2011), detailing twelve of its case studies.

## 4.1.4 Communities of Practice

As a result of Andean Change, organizations that did not know each other before have entered into useful collaboration across the region. For example, PROINPA in Bolivia and the PBA Corporation in Colombia have taught each other methods and seen each others' projects. CIAT and CIP have strengthened ties with each other and with their regional partners as a result of Andean Change.

## 4.1.5 Policy Roundtables

As described elsewhere in this report, Andean Change created policy roundtables to bring together decision makers to discuss and act on participatory methods. These may be sustained after the end of the project.

## 4.2 Who Benefited as a Result of These Outputs?

Andean Change worked with the poorest in the four countries (Table 3). The strategy followed to select cases and the projects to apply participatory methods was effective in including farmers that were intentionally targeted at the beginning. Overall, Andean Change worked directly with more than 700 farmers' households. When developing the baselines for the impact analysis, more than 400 households were also surveyed as control group.

Andean Change produced direct benefits for its regional and national partners that were linked regionally for the first time in providing each other with complimentary services. These included cross-training in participatory methods, shared monitoring and evaluation, exchanges of inputs for policy influence in the form of evidence for the Evidence Bank, Policy briefs and communicators of experiences in policy debate as well as communication in an internet-based regional knowledge-sharing platform. Partners in the case studies implementing participatory methods that included NGOs and local governments were strengthened by the introduction of the methods that improved the quality of their service provision. In all 20 cases, informal farmer groups as well as farmer organizations benefited from improved service provision as a result of the participatory methods. Several examples follow.

	Total	Extreme		<b>N</b> 10 <b>1</b>
Country	Poverty (%)	Poverty (%)	Households n	Nº people n
BOLIVIA	(70)	(70)	п	
Intervention	86.1	64.7	251	1,194
Control	85.9	65.3	159	738
Total	86.0	64.9	410	1,932
Rural national (1)	77.3	47.9		
COLOMBIA				
Intervention	84.7	50.6	218	995
Control	84.4	41.8	111	474
Total	84.6	47.7	329	1,469
Rural national (2)	65.2	36.6		
ECUADOR				
Intervention	76.1	36.9	145	678
Control	65.5	16.2	76	296
Total	72.9	30.6	221	974
Rural national (3)	52.9	31.7		
PERU				
Intervention	77.7	52.8	120	593
Control	75.7	52.9	70	342
Total	77.0	52.8	190	935
Rural national (4)	68.8	37.4		

Table 3. Poverty inc	cidence of rural	households in	Andean (	Change	cases	comparing	
intervention group and non-intervention control (based on national poverty lines)							

Source: Andean Change baseline reports.

Source: (1) .Bolivia: indicadores de pobreza, según área. INE. Instituto Nacional de Estadística.

Source: (2) Misión para el Empalme de las Series de Empleo, Pobreza y Desigualdad (Mesep) 2008. Colombia. Informe Tecnico

Source: (3) Actualización de Medidas de Pobreza y Extrema Pobreza por Ingresos - Diciembre 2008.INEC, Instituto Nacional de Estadistica y Censos.

Source: (4) Situacion de la Pobreza en el 2008, Informe Tecnico.Peru, Instituto Nacional de Estadística e Informática (INEI)

National institutions, NGOs and local organizations that worked with Andean Change in implementing the cases also benefited from the project and built capacity to continue to apply the methods after the end of the Program. In Ravelo, Potosí, Bolivia, IPTK (Instituto Politécnico

Tomás Katari) learned to do PM&E and ESF. Local people improved their self-esteem. IPTK used the PM&E on four projects, although they were not sure if it helped make the projects more successful or not. However, community members have begun using the PM&E in municipal government projects, suggesting that they have appropriated the method and will use it in the future.

PRODII, in northern Potosí, Bolivia, learned to use PM&E and ESF to work with farmers' associations producing native potatoes. The local people also learned to use PM&E. The leaders of the farmers' associations felt that the PM&E was useful for evaluating their work, leading to better planning for future activities. For example, the PM&E helped them to start new projects, such as selling food to the municipal school breakfast program. The PM&E also helped the farmers' associations to get women more involved, thus strengthening the organizations. The technical staff at PRODII learned to accept criticism and to delegate decisions to farmers. Using the



to delegate decisions to farmers. Using the PM&E helped to improve the farmers opinion of PRODII.

In the Bolivian Chaco, the staff of the PROMyM (a maize and peanut project: *Programa de Desarrollo de Cultivos Extensivos en el Chaco del Departamento de Tarija*) learned to do PM&E, as did farmers in 17 communities. Many of these communities are now applying PM&E in other projects. The farmers felt that they have more control over the maize and peanut project, and became more outspoken in meetings, more comfortable voicing demands and complaints. Women became more involved in the project.

In Colombia, the PBA Corporation learned to do PM&E, as did members of two farmers' organizations. The organizations learned to value women's opinions more and the women became more involved and more outspoken. The farmers felt that the PM&E helped them to become better organized, to make and accept recommendations, and to come on time to meetings. This was because the local people made their own adaptations of PM&E, creating a "PM&E game" whereby people were given prizes for punctuality and participating in meetings. The leaders learned to seek out the opinion of people who stayed quiet in meetings.



In Colombia, the SEP helped farmers' association come to value women's opinions more.

In Riobamba, Ecuador, a commercial organization of nearly 250 potato farmers (CONPAPA) used PM&E to develop and monitor production plans of its associates and to ensure timely delivery of the committed volumes. The PM&E also helped the organization technical supervision to become more efficient and to stock larger volumes of potatoes to sell in the local markets. They also were able to negotiate better prices.

In Oruro, Bolivia, the SEDERA Foundation (*Fundación de Servicio para el Desarrollo Rural Agropecuario*) used the PMCA (Participatory Market Chain Approach) to work with a milk producers' association to develop a new product, a high altitude mozzarella cheese, and sell it to pizza restaurants in Oruro. Members of the farmers' organization INPROLAC (*Industrias de Productos Lácteos Cercado*) learned to make the cheese and sell it. The SEDERA Foundation is

part of FEDEPLO (*Federación Departamental de Productores de Leche Oruro*), an umbrella organization of farmers' organizations, and is now selling many more dairy products to over a dozen outlets.

In northern Potosí, Bolivia, four farmers' organisations linked to *ayllus* (indigenous, territorial-based organizations) learned to write business plans after applying PMCA. CAD (*Centro de Apoyo al Desarrollo*), the local NGO that works with the farmers, acquired experience and market intelligence about native potatoes. CAD helped the local farmers to revive a network of potato producers, to help the farmers sell their native potatoes to upscale outlets, like supermarkets and hotels in La Paz. Individual farmers began selling native potatoes at local fairs.

In San Martín, Peru, the NGO Practical Solutions learned to facilitate the PMCA. Many local agencies became aware of PMCA and interested in implementing it, e.g. the regional Directorate of Foreign Commerce and Tourism (DIRCETUR), the regional agricultural directorate, INIA (Instituto Nacional de Innovación Agraria, the national agricultural research agency), and universities. Processors learned improved techniques for roasting and produced two new types of nicely ground coffee in smart packages for sale locally. Sales were good enough to begin replacing instant coffee and coffee roasted and ground in other parts of the country. The small-scale coffee processers were



Before the PMCA few native potatoes were sold from northern Potosí, Bolivia. Selling at an ecological fair.



The coffee roasters in Peru are local women, who have a very small factory.

women and this successful trial greatly strengthened their organization. Coffee growers, most amongst the poorer farmers in the region, learned what type of coffee these roasters needed, and began providing it. The quality and quantity of coffee for local consumers increased dramatically.

On the Caribbean Coast of Colombia, the PBA Corporation and two producers' organizations learned to promote in PMCA, which they applied to eight farmers' associations, which were strengthened as a result. While applying the PMCA, the farmers decided to try and export fresh yam, a new market opportunity for them. The farmers' organizations began selling new products, including organic fertilizer, sesame (to a chocolate factory), dried manioc as animal feed, and honey. They also got the idea of selling frozen manioc in supermarkets.

In Ecuador, a local NGO, the MARCO Foundation (*Fundación Minga para la Acción Rural y la Cooperación*), applied PMCA and helped smallholder farmers create a new value chain and recuperate potato landraces practically from nothing. The farmers were not used to selling any native potatoes and these were being lost in the region. Now smallholders are selling their native potatoes to fine restaurants in Riobamba. Chefs invented new recipes based on these attractive red and black varieties, and added them to their menus, so consumers can now enjoy these heirloom potatoes. A private company, INALPROCES (Healthy Snacks, www.inalproces.com), has begun buying the native varieties from the farmers to make potato chips, which if successful, will benefit this Ecuadorian company, farmers, farmers' associations and improve the diversity of consumers' diet.



Native potato ... chips, for the first time in Ecuador, providing income to smallholder potato growers.

In the mountains of Colombia, CENICAFÉ, the National Coffee Research Centre (which is part of the National Coffee Growers' Federation), learned to do participatory technology evaluation (PTE). With 199 farmers, researchers developed a new device (a bag with two long sleeves) which makes it easier and faster to harvest coffee. This tool benefits both farmers and harvesters and the participatory method used to create it will help CENICAFÉ invent more appropriate technology in the future.



Researchers and farmers learn to work together on a Mother-&-Baby trial in Peru.

Six groups of farmers in five departments of Peru



A better coffee harvester in Colombia, thanks to farmer input.

learned to use the Mother-&-Baby trial design (M&B), as did INIA, two universities, an NGO and a project. Potato clones are being evaluated and will be released to farmers, who will benefit from more new varieties that match their criteria. Plant breeders are learning to use this participatory plant breeding method and applying it formally in their organizations.

In Colombia the PBA Corporation learned to do the Mother-&-Baby method (M&B), as did potato plant breeders from the university (UNAL—*Universidad Nacional de Colombia*). Researchers from the University, CIP, CIAT, and the PBA Corporation learned about farmers' criteria for selecting potato varieties. Farmers and researchers began selecting promising new clones which will benefit farmers and consumers.

In the longer run the most significant impacts are anticipated in the policy area. The outcomes achieved so far are described in the section on policy. Because of the longer impact pathway of change in the policy area it is premature to estimate actual impacts on numbers of beneficiaries at this time.

## Comment on:

The effectiveness of the delivery of the communication strategy and how it supported the achievements of the programme purpose and output.

The Andean Change communication strategy succeeded in its objectives to:

- *Generate permanent exchange of information* between Andean Change's partners in Bolivia, Peru, Ecuador and Colombia.
- *Develop an interactive website* (www.cambioandino.org) specialized in information on participatory methods in the Andean region, with various tools for different users, allowing information to be uploaded by partners and allies in any country.
- Build relationships between actors in the national agricultural innovation systems (SNIA) to share information on participatory methods. As evidence of this, 1) people and organizations participated in three electronic forums, 2) communities of practice in PM&E and PMCA were created on demand, and 3) learning tours were conducted to share experiences amongst project beneficiaries.
- Design, implement and validate tools for sharing knowledge with the participation of actors in four countries. See Andean Change's "*Toolkits for Knowledge Sharing*" which describes: learning tours, electronic forums, experience Exchange days, and communities of practice. Available at: www.cambioandino.org/index.shtml?apc=gib-;-;1;-;-&x=3874.

- *Form a learning community on participatory methods.* Andean Change distributed the participatory methods widely. The people and organizations that carried them out, and anyone else who was interested, had access to a web portal with permanent information. The learning tours, electronic forums and practice communities brought people together as a learning community, with mailing lists and exchange tools that promoted contact between people and information sharing.
- Strengthen capacities to generate knowledge. With training workshops in three countries (Peru, Colombia and Bolivia) key partners learned to access, use and generate contents for Andean Change's website and for its key tools: the bank of arguments and the catalogue of participatory methods. Andean Change strengthened the capacity of partners to document their experience so it could later be shared with a wider audience.
- Generate and share information on participatory methods with various actors and audiences: by designing and diffusing material on Andean Change, the participatory methods (e.g. the final compendium of cases, several related documents and booklets, information on the web, the e-mailing lists titled "Alianza" and "Intercambio Rural") and a monthly electronic newsletter to 1,626 subscribers in Argentina, Bolivia, Brazil, Canada, Colombia, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Spain, Sweden, Switzerland, United Kingdom, Uruguay, Venezuela and elsewhere.
- Tools developed by Andean Change, such as the *Catalogue of Participatory Methods* and *the Bank of Arguments* are now international public goods.
- *Support policy change*, by designing and using a communication strategy for policy change which was developed in Bolivia and supporting the strategic policy area there.

# What evidence is there that policy makers and stakeholders have increased awareness of your research findings and that has this led to changed attitudes and practice?

When Andean Change began its work, there existed in the Andean region a broad familiarity with participatory methods in the public sector and civil society organizations engaged in agricultural innovation. The preponderant view that little new could be learnt about these methods amounted to fatigue with participatory rhetoric. At the same time, political pressure was rising, notably in Ecuador and Bolivia for more inclusive democratisation of rural development while in Colombia and Peru government was searching fro ways to make market-driven national innovation systems more responsive to the needs of small farmers who were being bypassed by expanding opportunities in export-driven commercial farming In all countries governments were, and continue to be, engaged in restructuring and redesigning the role of the public sector in making agricultural innovation more responsive to the poor. Andean Change succeeded in demonstrating the relevance of participatory methods to addressing high-profile policy issues like food security and sovereignty and linking small farmers to markets. In Colombia, Peru, Ecuador and Bolivia Andean Change was able to engage with national planning debates over the structure of national agricultural research and extension services, providing evidence that its selected participatory methods provide tools for getting beyond rhetoric to actually operationalising political goals of increased participation. Specific examples follow.

Andean Change's policy incidence strategy was to form National Policy Roundtables (*Mesas de Diálogo Político*) to promote political dialog between civil society and the State, especially between smallholders, researchers and decision makers. The Roundtables have discussed topics such as food security and food sovereignty, including smallholders in technology development, adapting to climate change, dialogue of knowledge (*diálogo de saberes*) and developing agricultural and livestock competitiveness. **The distinct feature is that each of these themes was supported with documented evidence of how participatory methods can contribute to these objectives**. There have been political forums and meetings in Bolivia, Colombia and Ecuador. The strategies developed in each country were based on diagnoses of the economic, political and agricultural research policies, identifying strengths, weaknesses and key actors.

In Bolivia the members of the national policy roundtable have expressed their intention to continue meeting after the end of the Program and have established a support platform with several public and private actors. The Bolivian, Colombian, Ecuadorean and Peruvian national agricultural research programmes have included several of the participatory methods in training of their staff. A composite participatory method (ERAs, *Escuelas de La Revolución Agraria* – Agrarian Revolution Schools) that borrows from experience with the Andean Change Programme has been institutionalized on a national scale in Ecuador with the involvement of participants in the Ecuadorean national policy roundtable. In Peru, a regional coffee value chain has adopted the PMCA method forming a multi-actor platform for strengthening small farmer participation. The *Federación Nacional de Cafeteros* de Colombia (National Federation of Coffee Growers of Colombia, FEDERACAFÉ, has institutionalized the PTE method for technical innovation (Uzeda et al., 2011).

In Bolivia, Andean Change made significant advances with representatives of over 30 institutions representing political, social and agricultural actors, besides national research institutions and international cooperation agencies (NGOs and donors). Andean Change shared experiences to reach an agreement on the topics to include in technical innovation and the debate on including the needs of indigenous and peasant communities in the research agenda. The National Agricultural and Forestry Research Institute (Instituto Nacional de Innovación Agropecuaria y Forestal -INIAF) has included participatory methods in its strategic plan and has been a key actor in making policy change. Andean Change



Andean Change worked with indigenous communities. Quechua-speakers in northern Potosí, Bolivia, participate in a P&E workshop.

also gave INIAF staff training in participatory methods such as "multistakeholders platforms" (*plataformas de concertación*), PM&E and farmer field schools (FFS).

Andean Change identified in Bolivia smallholder farmer organizations interested in inclusive technical innovation. Two national farmers organizations (CIOEC, *Coordinadora de Integración de Organizaciones Económicas Campesinas*, and AOPEB, *Asociación de Organizaciones de Productores Ecológicos de Bolivia*) joined the policy roundtable, where they had a distinguished participation and opportunities to voice their demands and strategic vision to INIAF and the rest of the national technical innovation system.

High turnover of personal limited affected continuity of the Bolivian policy roundtable, although representatives of civil society (mostly farmer organizations) have been much more stable. Representatives of INIAF and the Vice-Ministry of Science and Technology have also been fairly stable. In spite of turnover of some representatives, in the medium run the actors have started to trust each other (which was notably lacking at first) and have started to form a mutual understanding of concepts, proposals and a common language. For example, the policy roundtable nurtured by Andean Change in Bolivia has started using the term "integrated productive complexes" (*complejos productivos integrales*) instead of "value chains." The actors appreciate Andean Change's efforts to promote the roundtable, and have south long-term support from the international community to keep the roundtable open. To support the strategy of political change, the roundtables have written pamphlets showing the evidence of participatory methods.

**In Colombia** the National Planning Department had formed a commission to study an array of participatory approaches to rural innovation implemented by civil society organizations. Andean Change participated in seminars organized by the Commission where different methods and approaches were presented and debated by its partners, including PBA, FEDECAFE, the Javeriana University and CIAT. The participatory methods have been institutionalized in some cases.

CENICAFÉ, the national coffee research institute, established a national team for participatory research (Equipo Nacional de Investigación Participativa, IPA), which carried out the case study with Andean Change, to satisfy the research demands of the smallholders who are the majority of the members of FEDERACAFÉ, the parent organization of CENICAFÉ. This institutionalization was supported at the highest levels of the institution, and shows that farmers who are formally organized will support participatory research methods. CENICAFÉ also promotes participatory methods because they help smallholders acquire the technology they need to meet the demanding export requirements of coffee. CENIPALMA, the R&D arm of the Association of Palm Oil Producers, has institutionalized approaches that draw on methods publicised by Andean Change and along with FEDECAFE, was an influential advocate for participatory methods in the Colombian national debate about how to reform the national agricultural innovation system to make it more inclusive. With partial sponsorship from Andean Change, CIAT provided training in participatory methods including PMCA to Colombian Ministry of Agriculture projects with over 20 Municipalities with the result that several mayors lobbied the Ministry for support to outscale the methods on a national basis. A proposal to this effect is currently under consideration by the Ministry of Agriculture.

The PROINPA Foundation in Bolivia has incorporated several of the participatory methods promoted by Andean Change into its toolkit of methods for promoting agricultural development. PROINPA has developed courses and forums on participatory methods. Its expertise also supported capacity building activities of Andean Change with INIA in Peru, with the Regional Government of San Martín in Peru and with the Javeriana University of Colombia. INIA in Peru is studying a project in order to grant official recognition to the Mother-&-Baby (M&B) protocol.

Andean Change also developed a novel, on-line tool for influencing policy, called the Bank of Arguments (Banco de Argumentos), which collects evidence of implementation of participatory methods from the cases of. The Bank of Arguments should be a dynamic site where in the medium-term new evidence can be incorporated, so other actors can find arguments in favour of including poor farmers in agricultural and livestock innovation. Feeding the bank and encouraging its use among decision makers are both challenges for the future.

## What progress was made on capacity development?

Andean Change held nearly 50 different capacity building events for more than 2,000 people with more than 50 different institutions in Bolivia, Colombia, Ecuador and Peru. Direct training of participatory methods involved more than 700 participants. More than 900 participants were involved in electronic forums. Over 370 participants attended different events related to policy incidence (see Annex 6 for more details).

For the PMCA, PTE (Participatory Technology Evaluation), and M&B methods, improved trainers' guidelines and protocols were produced, published, placed on line and used for training and backstopping while implementing the 20 cases described above. Information developed by the Program was used as course materials to hold diploma-level training in Universities in Bolivia.

Two PhD dissertations and two MSc level theses were developed with support from Andean Change and covered topics where the Program needed rigorous inputs. The dissertations (with SOAS, University of London) look at impact and strategies of interventions using PMCA and PM&E compared to other type of approaches. One thesis with Kansas State University reviewed the literature on impact assessment of participatory methods. The other thesis with the Latinoamerican School of Social Sciences (FLACSO) developed a framework for policy incidence on the use of participatory methods.

# How did the research contribute to and impact on the wider environments at national and international levels?

At least six new peer reviewed publications (for publication during 2011, see Annex 5) documenting the evidence base for influencing policy toward institutionalising the inclusion (participation) of the poor in agricultural innovation processes across the Andean Region.

Policy Roundtables established, as described above.

Researchers at CIP, CIAT, universities, PROINPA, PBA Corporation and others learned to use and appreciate various participatory methods (e.g. PMCA, PIPA, SEP, M&B, PTA).

The Institutional Change and Learning Initiative of the CGIAR (ILAC) has included Andean Change as one of the learning labs for new methods in evaluation and learning, providing an outlet for the Program's outputs and visibility within the wider CGIAR and evaluation community.

Andean Change is preparing a book documenting outcomes and experiences with 12 cases applying participatory methods in the Andean region. This book will be printed and widely distributed in the region and elsewhere.

## 5. LESSONS LEARNT

A project (especially one spread over four countries) must invest in developing a shared technical vocabulary and analytical framework if the partnerships are to become functional. The partners that were conducting impact studies needed almost one year to establish the required common ground. Andean Change conducted a literature review and analysis of best practice on partnerships to develop a conceptual framework for its work with several type of partners (Horton et al., 2011).

Pressure to move ahead and the modest track record of Andean Change at the beginning meant that the Program was only able to engage relatively local experiences and not the large-scale partners who the Program would have liked for testing participatory methods. The Program was also not able to fully separate demand and supply as much as it would have been desirable. In the 20 cases Andean Change supported, some organizations assumed roles of demanding (on behalf of the final beneficiaries) and supplying participatory methods.

Partnerships should build coalitions with influential policy actors in order to create awareness of opportunities for using research results as evidence in support of change. This carries the risk of being allied to the "losing" side in a policy debate. Therefore it is important to facilitate neutral spaces where public debate can be engaged in and informed.

Experiences with participatory monitoring and evaluation (PM&E) in Bolivia and Colombia show that it is possible to integrate poor farmers into the design, prioritization and implementation of projects in their communities. This allows the project objectives to respond better to the needs of the beneficiaries, and any deviation from those objectives will be reported early, reducing unwanted consequences. This inclusion favours democracy and equity.

Andean Change's experiences with PM&E showed that integration is slow at first, and it takes time to build trust and dialog between actors. Several times the PM&E re-oriented the projects they were linked with, making them more efficient. While applying PM&E in northern Potosí in Bolivia, the method had to be translated to Quechua, the local language, and drawings were used to help participants express their ideas. But in the end, the local people did participate actively in the follow up of the project and local, formal organizations were created (Municipal Development Councils) to institutionalize participatory monitoring and evaluation.

Using participatory varietal selection (Mother-&-Baby) in Peru and Colombia gathered evidence that research systems can benefit from early participation of farmers, most of whom were indigenous, in complex research normally reserved for elite researchers. In both cases the farmers identified criteria for selecting potato that changed or added to the original criteria chosen by the researchers. The farmers used plant architecture as one criterion, since short stolons make manual weeding easier. Some of those clones which researchers had not prioritized continued into later phases of selection and may become varieties. Varieties selected by farmers are more likely to be adopted. The farmers also invest in the trials (with land, labour, fertilizer and management) sharing in the risks of research.



Indigenous women in Peru evaluate potatoes in a Mother-&-Baby trial. INIA is taking steps to approve the protocol.

While applying Participatory Technology Evaluation (PTE) in Colombia, research systems were also strengthened. A technology developed to make coffee harvesting more efficient for poor farmers was adapted after evaluations with the harvesters in the field. The design was radically modified until the potential final users were completely satisfied with it. For example, the farmers pointed out that the collecting bag had to be in front, to keep from throwing the person off balance, and the mouth of the sleeve should be smaller, making it easier to get one's hands in between the branches of the coffee bushes. These suggestions are important because small coffee farms are usually on steeper slopes than larger farms. The final design has been well-accepted by poorer farmers, and the Federation of Coffee Growers of Colombia has recommended it mass manufacture and distribution.

Andean Change's adaptation of Participatory Impact Pathway Analysis (PIPA) has contributed to generating evidence about the effectiveness of participatory methods. It has been difficult to gather clear evidence of significant impact on the beneficiaries in the relatively short time between implementation and surveying impacts. The projects were implemented in a year or two, sometimes three, and evaluations were held as soon as they ended, not leaving enough time to generate evidence that participation had made a difference in improving livelihoods. However, in all cases PIPA made it possible to gather evidence of significant outcomes directly attributable to the participatory methods.

Andean Change has published a glossary of terms and concepts (included in the Guide for Studies of Outcomes and Impacts, Alvarez et al., 2009), a guide for ex post evaluation of outcomes from participatory methods and a guide on monitoring outcomes (see section on training materials in Annex 5). These were applied in the field, allowing a better understanding of the outcomes and limitations of participatory methods.

Andean Change had some significant success encouraging national agricultural innovation systems to take on board the research demands from poor, rural communities, farmers' associations and local governments. While applying the PMCA in Bolivia, Peru, Ecuador and Colombia, smallholders were indeed linked to the market, but the method also helped introduce technical innovations that strengthened the agricultural research systems. The R&D institutions involved in these cases learned information about the actors and the markets that allowed them to better orient their research agenda. In the San Martín region of Peru, creating and promoting a new brand of coffee encouraged improvements in selecting, roasting, grinding and packaging. Selling cheese in Oruro, Bolivia has helped define new and more exacting quality and food safety standards for the dairy industry. The post-harvest treatment of native potatoes in Bolivia has been redesigned, with more rigorous selection and cleaning, to make the potatoes more attractive on the market. Yam producers in Colombia have begun planting more densely, to reduce the size of the tubers at harvest.

## 5.1 Good Practice/Innovation

Andean Change designed and implemented an innovative internal market among partners for research products (in this case, participatory methods) in order to identify the demand and supply for partnerships.

Policy roundtables were set up to encourage public debate about the usefulness of Andean Change's participatory methods for nationally important policy goals such as food sovereignty and security. The earlier influential policy actors were engaged in a roundtable, the more ownership they assumed for the roundtable in the long run.

Andean Change developed formal guidelines, training materials, and protocols to ensure fidelity of implementation of participatory methods. Some of these methods had little formalization and written information before. Andean Change also developed a generic approach for visualizing impact pathways (theories of change) for participatory methods. These are now international public goods in their own right.

Adapting and validating a participatory approach (PIPA) to evaluate outcomes and impacts of different types of programs (flagged during OPR as highly promising) was written up with acknowledgement of Andean Change/DFID. The OPR commented "Significant achievements have been made by Alianza (Andean Change) in designing and developing participatory methods (PM). For example, the combination of innovation pathway analysis and outcome mapping, incorporating theories of change, demonstrates methodological innovation and progress within the sphere of monitoring and evaluation. This development has wider significance and utility than assessing agricultural innovation" (see Alvarez et al., 2009; Alvarez et al., 2010).

Andean Change developed an evaluation framework for assessing cases applying similar participatory methods under different circumstances.

Andean Change conducted a literature review of best practice for partnerships (Horton et al., 2009.) and for impact assessment of participatory methods (Andrango et al., in preparation).

## 5.2 Project/Programme Management

Agreeing *a priori* on a few principles to guide management decisions was a key to the successful operation of an inter-institutional Executive Committee that carried out all the major operational decisions for Andean Change. One such principle was the agreement to abide by an agreed formula for allocating the budget among partners in a transparent fashion.

Including regional partners (PREVAL, Papa Andina, COLNODO, PBA Corporation, RIMSIP and CONDESAN) in a Steering Committee was helpful for carrying out the project, for creating alliances among local partners and for identifying possibilities for advocacy. The Steering Committee included policy focal persons from 2009. The Steering Committee played key roles for example in establishing criteria for assessing potential cases for inclusion in Andean Change and deciding which cases should be included. The Steering Committee contributed to developing a proposal for a second phase of Andean Change.

By the end of the program, Andean Change's attempt to create a "market" of participatory methods was still imperfect, and will probably not function on its own in the future without a champion institution to promote it, although some of our partners are moving ahead and may assume this role. There are still communication gaps between those who supply the methods and those who could demand them, but progress has been made (e.g. inventory, learning tours, web page, electronic forums).

## 5.3 Communication

Andean Change worked with the philosophy that the communication strategy should go beyond merely informing and communicating. It should generate knowledge, by creating spaces and tools that bring people together (in person or on the internet) so they can learn from each other. Experiences should be systematically written up from the start of the program, to create a permanent register, to review the work as it happens, and to have accurate information to share in different formats.

Andean Change promoted the online web-site as a tool to link partners and stakeholders around the topic of participatory methods and to share information beyond the Program activities. Partners were trained to contribute to the web-site contents. On line communication and knowledge sharing was complemented with field visits and tours to cases and training.

## 6. **PROGRAMME MANAGEMENT**

## Comment on:

## How researchable problems/themes were defined and prioritised.

Researchable themes were defined initially based on previous DFID-funded projects, which were familiar to many of the project leaders and staff. These earlier projects (INNOVA, FOCAM and FIT) had all promoted participatory R&D methods, and had gained enough experience to hypothesize that participatory methods increased the access of the poor to appropriate innovations, and therefore improved their livelihood. The project designers further hypothesized that if national governments in the Andean region were presented with hard evidence of the benefit of participatory methods as part of a structured advocacy process, then this would lead to policy change.

Andean Change conducted an initial planning workshop to identify demand for participatory methods, potential suppliers and pilot cases to apply and test the methods (see Zapata, 2007, for workshop report). This initial planning stage was carried out with stakeholders. The Program conducted a workshop on PIPA analysis to develop tools for implementers in envisioning the potential outcomes and impacts in each pilot case. PIPA was also used to develop a tool to monitor those outcomes and impacts. Particular cases were selected with the Steering Committee.

## Mechanisms in place for partners to contribute to programme management

Andean Change structured the Program around five thematic areas: Participatory Methods, Agribusiness, Outcomes and Impacts, Knowledge Sharing and Policy Incidence. Partners were equally responsible in leading these areas. The first three were led by partners (PBA Corporation, Papa Andina and PREVAL). Knowledge Sharing was led by CIAT and Policy Incidence by CIP. An Executive Committee with members from CIAT and CIP provided management on a daily basis. A regional Steering Committee with key partners and experts from different organizations provided policy and management advice on a annual basis. Andean Change also held annual meetings with all key partners to monitor progress and plan activities and milestones for next year. Budget decisions were made at the time of the annual meetings.

The partners met at an initial workshop CIAT headquarters in Cali, Colombia, in June 2007 to help in planning the Andean Change project. They systematically identified which cases could receive support. They prioritized projects which were just beginning, and where a pro-poor focus could be used. These projects were already "owned" by the partners. That is, the partners had acquired the funding and were managing them. Andean Change simply facilitated the participatory methods and helped to link with the institutions or experts that could teach them and provide backstopping. The partners felt that the methods would help them conduct their projects more appropriately for the poor, and hence improve the success of the projects, but the partners themselves retained management of the projects from start to finish.
Andean Change commissioned baseline studies and impact studies (with Program partner PREVAL and others) which gave Andean Change and partners insight into the projects' achievements. Partners met occasionally; the last time was in March, 2011, in Cochabamba, Bolivia, when they edited chapters on their projects, with help from Andean Change, to be included in a book on their experience.

# Changes to the programme during the reporting period and how these changes address gaps between achievements, outputs and purpose

In 2009, Andean Change reviewed the original Program's outputs and provided a revised definition of four new outputs instead of five as described in the proposal. This allowed Andean Change validate the work with the cases and participatory methods. It also defined a better focus for its policy incidence strategy to influence target audiences to use pro-poor inclusive methods, a goal that was sustained along the way. This new focus complemented changes made earlier in the Program. As the project evolved into a regional project, the proposed Bolivian Science and Technology Unit evolved into a Regional Policy Unit with three main purposes: 1) to establish regional links with and among influential policy-makers in the National Agricultural Innovation Systems in the region, 2) to engage the decision makers to try to influence policy in each country and share experience these initiatives regionally, and 3) to strengthen exchange about pro-poor policy influence in the Agricultural Innovation Systems regionally.

The Output to Purpose Review (OPR) by Simon Anderson in 2009 suggested giving more emphasis to creating national platforms to scale-up the appreciation and use of participatory methods in state agencies in the project countries. The Policy Roundtables (described elsewhere in this report) have engaged with this constructive criticism.

The OPR also suggested changes to the steering committee to include stakeholders that would help in building a sustainable regional platform to give continuity to Cambio Andino. To respond to this additional suggestion, the Steering Committee included or changed roles of regional organizations with mandates that would strengthen Andean Change regional focus. Both Condesan, a regional consortium for the development of the Andes, and Rimisp, a regional NGOs for rural development, were given prominent roles in the new structure.

The review also recommended a "well designed exit strategy" to provide for achieving the project purpose, and to develop "a proposal for the establishment of a regional platform and the institutionalisation of a process to arrive at a new regionally owned project corresponding to the aims of Alianza Cambio Andino". However this was frustrated when it was not possible to secure funding for a second phase of Andean Change (see section on "exit strategy" below).

Did any key assumptions (as detailed in the programme's log frame) change, which led to a reassessment of risks? If so, please ensure details are included in the risk assessment annex.

Additional risks were included during the OPR not because of changes in key assumptions but because they had not been adequately considered during project design (see risk assessment annex).

## Comment on:

*Progress of expenditure and steps taken to ensure the research budget was fully spent.* The Executive Committee regularly reviewed progress in expenditure against targets to ensure timely spending.

*Identify any particular problem areas and any significant changes to the financial plan.* None to report.

Has any multiplier funding been obtained? If so, please summarise here and provide information broken down by partner in the financial annex.

ILAC provided complementary funding for work in the policy area (described above).

## 7. LONG-TERM SUSTAINABILITY OF THE RESEARCH

## Comment on:

## How will the research be promoted once research programme funding ends?

Andean Change created a network of partners and allies, integrated into regional platforms. They include universities, NGOs, foundations and government agencies committed and motivated to continue using participatory methods in innovation. Through the network of partners and allies, research products will be made widely available making use of the internet site and the distribution of key printed materials including the Compendium, working documents and policy briefs.

## How will people access the research products once the research programme's funding ends?

Andean Change worked with its partners to develop a proposal for funding a second phase which was shared with DFID. Unfortunately it was not possible to identify a funding source for this proposal. Hence an exit strategy was developed to help partners incorporate selected activities into their own programs. Several partners in Bolivia including SDC and INIAF expressed the intention to continue the policy roundtable. Federacafe in Colombia will continue to use participatory technology assessment (PTE). The PBA Corporation and CIAT will incorporate participatory research into Colombia's national agricultural extension system. PROINPA and the PBA Corporation will continue to use PMCA. Various universities in Bolivia and Colombia have taken up the validated methods into the Masters-level degree curriculum.

*The exit strategy* relied on the capacity developed in partners to keep using participatory methods and to sustain changes in policy:

- The Bolivian National Agriculture, Livestock and Forestry Research Institute (INIAF), and other national partners with support of SDC (Swiss Agency for Development and Cooperation) will continue the National Policy Round Table approach on inclusion and participatory approaches. On February 25<sup>th</sup> 2011, 30 participants in the Roundtable meeting agreed to establish a Committee with INIAF and SDC's support for facilitation. Cambio Andino partners from the University of San Simon at Cochabamba will support and backstop the process. This means the Bolivian Roundtable will continue its work after the end of the programme.
- Training and backstopping of several participatory methods was provided to INIAF in Bolivia at their request, particularly for PMCA and participatory technology evaluation field schools. In Colombia 22 technical people from the Ministry of Agriculture were trained in the CIAL method.
- Adoption of participatory technology evaluation (PTE) has been institutionalized by the Colombian Coffee Growers' Federation (FEDERACAFE), a strong producer association supported by levies on coffee exports.
- Methods validated by Andean Change were incorporated into the reform process of the Colombian Ministry of Agriculture extension system, supported by the PBA Corporation and CIAT.
- The PMCA was adopted as a regular feature of NARS R&D in Bolivia (PROINPA), Peru (Municipal Governments) and Colombia (PBA Corporation).
- Andean Change's training materials were incorporated into M.Sc. courses at universities in Bolivia, Peru and Colombia.
- Andean Change's web portal (www.cambioandino.org), including all publications and tools, was handed over to the project's partners, including CIAT, CONDESAN (Consortium for Sustainable Development of the Andean Eco-region) and PREVAL. CIP will maintain the web portal accessible through its web page.
- Partners including participatory methods in their own research projects on participatory methods. PROINPA, with a grant from the Dutch Government, "Strengthening participatory innovation capacities to fight against rural poverty," PBA as part of its rural development strategy.

Have any follow-on research programmes been agreed, which build on the outputs from this research programme? If so, please give details.

The EU funded program "Strengthening pro-poor agricultural innovation for food security in the Andean Region," led by CIP with new and existing Andean Change partners across four Andean countries, will use the policy influencing platforms and approaches developed and validated by Andean Change.

# ANNEX 1. LOGICAL FRAMEWORK.

Current Log frame

Brief narrative	Objectively verifiable indicators	Means of verification	Assumptions and risks
<b>Goal</b> Contribute to the construction of sustainable livelihoods of poor communities by enhancing their participation in technological innovation processes	The program has shown how a series of participative methodologies contribute towards the inclusion of 30-50% of the poorest producers and has increased the relevance of the benefits obtained by the poor producers from the projects or programs of their partners in four countries of the Andean region in the year 2010.	At least two historical impact studies and 5 studies of the program's methodologies assessing changes in the inclusion of the poor and resulting benefits from the introduction of participatory methodologies A Report evaluating on how the regional exchange of methodologies and experiential learning has influenced the inclusion of the poor in national innovations systems.	
<b>Objective</b> Improve the capacity of National Agricultural Innovation Systems in four Andean countries to include poor communities, farmers' organizations and local governments in technological innovation processes through the use of participatory methodologies and the implementation of appropriate government policy	For the year 2010, a regional alliance of partners is experimenting with a set of participatory methodologies of the Program, and generating evidence and experimental/practical learning on their implementation. This evidence of impact b is has been used to inform policy debate in the four Andean countries on behalf of the poor.	A report synthesizing the impact studies on the methodological interventions and their use to inform public debate. A final report on use of the methodologies and the results of the capacity building	Changes in policy and institutions do not affect the capacity of innovation systems to reach the poor. Partner organizations and project beneficiaries sympathetic to the project comply with their agreements to participate.
Products 1. A set of at least six successful and appropriate participatory methodologies and approaches that favour local development and improved livelihoods for the rural poor are consolidated and widely	<ul> <li>1.1 By December 2006 national partners in the Andean region have joined the international steering committee and have had a Project Launch Workshop to plan regional activities</li> <li>1.2 The regional team for this output has been</li> </ul>	Annual reports Proceedings of the project launch workshop and subsequent annual planning workshops Publications, manuals and	Political stability in the countries of the partners. The partners in the Andean countries are prepared to participate in the exchange

Brief narrative	Objectively verifiable indicators	Means of verification	Assumptions and risks
disseminated in the Andean	formally constituted and is implementing	guidelines.	process and in the process to
region through knowledge-sharing	the work plan.		approve the participative
among the National Agricultural		Web – based participatory	methodologies.
Innovation Systems (NAIS) of	1.3 An inventory of experience with	methodologies inventory	
Bolivia, Colombia, Ecuador and	participatory approaches has been		
Peru.	conducted in each of four NAIS	Interviews with experts.	
	1.4 By 2008 a set of at least 6 participative	Reports of the partners carrying out	
	methodologies have been validated and	the methodological interventions in	
	experiences have been exchanged on their	agricultural innovation projects of	
	institutionalization.	participating NAIS	
	1.5 By 2008, at least 30 nationally	Interviews with instructors and	
	acknowledged instructors are training others in participative methodologies in the	learners.	
	Andean region.	A web-based directory of regional	
		trainers in the programme's	
	1.6 In march 2009, at least 5 methodologies	methodologies	
	have been customized by at least 3 partners		
	in other countries of the Andean region as a	Evidence of the methodological	
	result of the exchange of knowledge that took	change acknowledged by consensus	
	place among them.	with international partners.	
2. A set of at least ten studies	2.1 In 2006 the regional pro-poor impact	Studies published about the	
documenting the effectiveness of	assessment team has been formally constituted	experience with the policies in	
participatory local development	and is implementing the work plan for	Bolivia and other Andean	
methodologies in the Andean	this output.	countries.	
region in improving the livelihoods			
of the poor formulated for use in	2.2 Impact assessment study workshops have		
evidence-based pro-poor policy	been conducted by the regional team in years 1,		
dialogue and formulation.	2 and 3.		
	2.3 In 2008 at least 10 studies available,	Impact studies	
	documenting the application and		
	institutionalization of participatory, local		
	development and livelihoods methodologies in		
	the Andean region.		

Brief narrative	Objectively verifiable indicators	Means of verification	Assumptions and risks
	<ul> <li>2.4 In 2009 evidence available documenting the impact of the institutionalization of participatory methodologies on the inclusion of 30 – 50% more poor farmers in targeted NAIS projects</li> <li>2.5 In 2010 at least 3 documented cases available of pro-poor policy dialogue in national innovation systems using evidence from the project</li> </ul>	Documented examples of policy dialogues about the institutionalization of participative approaches, and how they can make national innovation systems operate more on behalf of the poor.	
	2.6 In 2007 an instrument available which facilitates the documentation and systematization of evidence about the contribution of research to policy formulation	Methodological Guidelines on systematization.	
3. A regional platform for promoting policy change and debate about improving the inclusion of the poor in agricultural innovation in the region,	3.1 For the year 2009, up to four Policy Discussion Groups (Mesas) have been formed at the national level, including experts having a strategic vision and opportunities of political incidence for the use of participative methods in	Minutes of the Group discussion (Mesas) meetings.	3. The Bolivian government incorporates the model and allocates sufficient resources for its operations.
experienced in using evidence on the impact of participatory	the Andean SNIAs.	The team's work plans	
approaches for promoting social inclusion. The platform will consist of a cross section of partners from national agricultural innovation systems (international and national agricultural research programs, second or third-order producer	3.2 As of 2008 a regional team for the incidence of policies is developing competencies in the Andean Change team and the regional partners, so they can have an incidence in the formulation and enforcement of policies that are more oriented on behalf of the poor and that contribute to the exchange of knowledge about	Memoirs of the Internal Workshop on Plans for Political Incidence.	
organizations, NGOs and private sector) in the four countries in the	their experience with other Andean countries.	Argument bank in use	
Andean region	3.3 As of 2009 there is a public debate using the evidence of the impact from participative approaches in at least two countries of the	Workshops on Evidence and Arguments in each country.	
	<ul><li>Andean region.</li><li>3.4 For the year 2010, changes have been</li></ul>	Publicity for the fora and Activities to be publicly debated.	

Brief narrative	Objectively verifiable indicators	Means of verification	Assumptions and risks
	documented in the attitudes, beliefs and	Monitoring and study of the	
	behaviours of the decision makers with regard to	process of political incidence by	
	MPs who are participating in the public debate	the impact team.	
	in at least two countries in the Andean Region.	The second the second	
	2.5 Deaths and of 2010 there are dehoted that	Three case studies on how the	
	3.5 By the end of 2010, there are debates that have an influence on the proposals to formulate	project is influencing the debate on policies.	
	or reformulate rules, decrees, and research	policies.	
	protocols to commit the institutions and their		
	resources to the MPs.		
4. A regional, internet-based	4.1 In 2007 the information and knowledge		
knowledge-sharing Forum with an	sharing regional team has been formally		
interactive inventory of	constituted and is implementing the work plan		Partners consider the concepts,
participatory methodologies, linked	for this output		approaches, methods, and tools
with experiential learning about			developed in other countries to be
their application, toolkits, training	4.2 A Workshop with partners from the Andean		useful and relevant
in their use and studies of their	region has planned the south-south KS activities		
impact. The Forum is used to	in Stage One		
promote learning and policy		Figures on dissemination of project	4.3 Partners prove receptive to
dialogue about inclusion of the	4.3 An interactive, internet-based Forum	documents and downloads from	new knowledge sharing
poor in processes of agricultural innovation.	established that promotes exchange of experience and documents developed by project	the project Forum Web site that demonstrates regional KS	techniques
nnovation.	partners, widely circulated in electronic and	that demonstrates regional KS	
	print form and in Spanish and English over the		
	course of the project		
	estine of the project		
	4.4 By 2008, a regional knowledge sharing	Reports on project workshops and	4.4 Partners perceive
	workshop and virtual exchanges between	other events, including evaluation	collaboration to be in their own
	Andean partners have enhanced innovation with	results,	best interests.
	participatory approaches in the participating	and on the use of collaborative	
	NAIS through the use of knowledge-sharing	software	
	techniques (e.g., knowledge fairs, peer assists,		
	and collaborative software), starting in Stage	Collaborative agreements and	
	4.5 In 2010 the project's comprise of the ite	reports on partners' joint activities	
	4.5 In 2010 the project's experience with its		
	strategy for south-south knowledge sharing is		

Brief narrative	Objectively verifiable indicators	Means of verification	Assumptions and risks
	published using results from the Andean Region		
	NAIS about the pro-poor impact of the project's		
	methodologies, their own adaptations of these		
	and the policy change needed to institutionalize		
	their use in national innovation systems.		

# ANNEX 2. FINANCIAL SUMMARY

ITEMS	Expenses GBP			Total	
	Year 1	Year 2	Year 3	Year 4	Expenses
National Partner Thematic Teams(6)					
Personel ( local hires )	172,329	146,047	177,782	188,876	685,034
National & International Travel	16,726	14,317	17,245	18,222	66,510
Capital Equipment	9,140	7,288	9,407	9,939	35,774
Comunication, publication & Dissemination	12,136	9,735	12,542	13,764	48,177
National and regional partner	60,788	48,523	62,710	69,845	241,866
Commissioned Research Fund	65,056	67,378	66,786	57,727	256,947
Annual program Review & Steering Committee	8,873	7,087	9,145	16,599	41,704
Miscelaneous ( Operation )	143,078	115,288	147,629	156,837	562,832
PRGA overhead for transfer of funds ( 5% )	24,408	20,007	25,162	27,365	96,942
Subtotal	512,534	435,670	528,408	559,176	2,035,788
CGIAR Centers and Science and Technology Unit					
Project Coordinator (Joint position)	22,745	42,447	30,162	48,208	143,562
Administrative assistant	6,460	13,283	13,300	6,885	39,928
Systematization expert	-	-	-	-	-
Research unit coordinator (IRS)	52,250	52,250	52,250	53,030	209,780
Science and technology policy unit coordinator	5,552	8,570	24,499	14,179	52,800
International travel	33,675	50,447	67,259	54,743	206,124
National travel	3,795	6,078	4,730	3,423	18,026
Comunication, publication & Dissemination	6,461	3,164	1,781	1,299	12,705
Consultancies ( Cientific Support )	66,690	89,193	84,178	69,615	309,676
Miscelaneous ( Operation )	62,812	71,093	71,833	43,736	249,474
Institutional Overhaead (20%)	52,198	71,895	69,998	56,663	250,754
PRGA overhead for transfer of funds ( 5% )	9,703	12,618	8,052	11,009	41,382
Subtotal	322,341	421,038	428,042	362,792	1,534,213
TOTAL	834,875	856,708	956,450	921,967	3,570,001

## ANNEX 3. RISK ASSESSMENT MATRIX

The 2009 mid-term review (OPR, output to purpose review) stated that "the risks and assumptions in the log frame were poorly conceived and incomplete and improvements are recommended here." This is analyzed in the following table.

Outputs	Risk assessments	Comments from OPR	Analysis
1. Consolidation and wide diffusion of at least six appropriate participatory methods and approaches which favour local development and improved livelihoods for the resource-poor, rural population in the Andean Region, by sharing the information with the national agricultural innovation systems (SNIA) of Bolivia, Colombia, Ecuador and Peru	Political stability in the partners' countries. The partners in the Andean countries are prepared to participate in exchanging and approving participatory methods	The risk of 'political instability' was naïve. The likelihood of political change in the countries targeted was close to 100 per cent during the project lifetime, and political change represents challenges and opportunities for such a project that emphasises policy influence. In the case of Bolivia (the project's main focus) significant political change has happened and a period of affirmation of political aims and the re-negotiation of relations with national and international stakeholders has occurred. These political changes, including a new constitution, were assessed by the OPR mission, using inputs from extensive discussions with project and non-project informants, as favourable to the achievement of purpose via outputs. To take advantage of these changes the selection of additional project partners has to emphasise scaling-up more than scaling-out criteria	Actually it was the reviewer who naively misunderstood what passes for "political stability" in Bolivia. In 2007 many people in were predicting civil war. The framing of the constitution was relatively peaceful and the approval was democratic (at least in the final step). The new constitution was eventually, if begrudgingly accepted by the opposition and the years from 2007 to 2011 have been more stable than many had expected. The other Andean countries have remained more or less as stable as they were (e.g. Alan García has been president of Peru over this entire period).
2. At least 10 studies that document the effectiveness of the participatory methods for local development in the Andean Region to improve the livelihood of the poor are formulated to be used in pro-poor policy dialogue and formulation, based on evidence		<ul> <li>2. No risks or assumptions were stated in the log frame for this output. The OPR proposes that the following risk is added: "The collection of evidence and arguments is inadequate to achieve national policy influence."</li> <li>In addition, the assumption that: "Mutual understanding on the importance of participatory methods will be achieved between project staff and policy shapers, makers and implementers in each of the countries targeted."</li> <li>The more recent achievements of the policy influencing working group in terms of policy discourse analysis and entry point identification have already begun to mitigate the new risk identified and to demonstrate the assumption to be correct.</li> </ul>	The OPR was correct here. Andean Change set a high standard for itself, intending to prove that participatory methods improved livelihoods, by comparing project communities to control groups (or counter-factuals). If a local partner was running the same project in two communities, one with and one without participatory methods, in the end there was little <i>economic</i> difference between the groups. However the local people themselves certainly thought that the processes of development had improved (e.g. being able to evaluate the project in their village or meeting the buyers of their projects as equal). In other words, Andean Change improved the <i>Outcomes</i> if not the <i>Impacts</i> of the project.

Outputs	Risk assessments	Comments from OPR	Analysis
			strong enough evidence to start policy dialog in the Roundtables.
3. (Revised during the OPR) Three national policy consultation roundtables set up and functioning (in Bolivia, Ecuador and Peru or Colombia) in preparation for the establishment of a regional platform. The roundtables and subsequently the regional platform are to promote public debate and policy change to improve the inclusion of the poor in agricultural innovation, and using evidence from impact assessments of participatory methods. The roundtables and platform will consist of a range of stakeholders drawn from the national innovation systems (incl. NARs, producer groups, NGOs and the private sector). <i>New additional OVI 3.6 for Output 3</i> : A proposal developed and agreed with Andean Change member organisations and partners for establishing a regional platform and institutionalising a process to arrive at a new regionally owned project corresponding to the aims of Andean Change.	3. The Bolivian state incorporates the model and assigns enough resources for it to function	<ul> <li>3.1 New assumptions need to be added: "There is support from key national stakeholders for a regional platform of the design and composition proposed by the Alianza." And: "Political opportunities are identified and taken by the project."</li> <li>3.2 The project has taken the decision to establish national discussion Roundtables as ways to establish a regional platform. The OPR mission identified that these platforms could risk being weakened by nonstrategic selection of members or the self-selection of members or the self-selection of members that do not meet the scaling-up criteria required.</li> <li>3.3 The first new risk proposed for Output 2 above is also relevant for Output 3 It may be that the control or counterfactual populations in the impact studies can be used Where this is not the case then other cases will have to be identified. The issue is to provide the policy maker with evidence that allows a comparison of the costs and efficacy of using PM for agricultural innovation (and other) objectives These not be rigorous counter-factual type comparisons but more comparable cases where cost efficiency and effectiveness evidence is available.</li> </ul>	These are valid assumptions. The third one is the most interesting, because it suggests that the Andean Change model was too rigorous, that there will not always be differences between the control groups and the treatment groups. In the end, Andean Change could not show differences in improve livelihoods between treatment and control groups. With the benefit of hindsight, the groups were probably too similar. Both were receiving projects from sensitive agencies, interested enough in participatory methods to ask for more training. There may have been a crossover effect, if farmers and staff shared insights with control communities, which may lessened the difference between control and treatment communities.
4. A regional participatory forum on the exchange of information, based on the Internet, with an interactive inventory of participatory methods, with learning resources, their application and impact studies associated with experiential learning about the use of these studies to promote diffusion and greater development	<ul> <li>4.2 The partners consider the concepts, approaches, methods and tools developed in other countries useful and pertinent</li> <li>4.3 The partners prove receptive to new techniques for exchanging</li> </ul>	Risk 4.2 does not qualify, as this risk is under the complete control of the project and should therefore be removed from the log frame. To better be able to mitigate risk 4.3, the profiles of the prioritised types of participatory method users and other stakeholders need to be developed to better tailor the information provided through the portal. One would expect documents to be aimed at say practical community level participatory method users, those that make resource	4.2 The OPR is essentially correct. Of the 20 cases which started, only 12 were used in the final analysis. The others essentially dropped out, possibly because they did not find the methods useful (or at least did not feel that it was important to measure their usefulness with control groups and treatments). But at least for the 12 cases that did finish, they found the methods useful. It is especially convincing that farmers continue to use SEP and PMCA on their own, and teach the methods to others, even if comparisons with
	exchanging knowledge	those that make resource allocation for innovation activities, and those that make policy decisions with regard to	even if comparisons with control groups could not (yet) show economic benefits from participatory methods.

Outputs	Risk assessments	Comments from OPR	Analysis
	4.4 The partners perceive mutual support as something of great benefit	innovation programmes	4.3 That is easy to say in hindsight. This suggestion could be taken up in a future project.

## ANNEX 4. THE COMMUNICATION STRATEGY

A web-based portal using multiple internet-based communication tools for external and internal communication was greatly enhanced by the active engagement of a professional communicator to facilitate, manage and oversee quality of communication of products and processes with partners and with larger groups of stakeholders, providing a dynamic and effective environment for participation. This improved the attractiveness of the portal which was able to engage upwards of 900 participants in its electronic conferences.

To strengthen the capacities of its partners, Andean Change prepared improved manuals, training guides and protocols for implementing all of the methods that were used, even for methods like PMCA and PME, which already had manuals. This was done to allow Andean Change to improve the quality of implementation. The protocols help institutionalize the methods and provide clear rules for implementation.

The manuals, guides and protocols were used in training courses, seminars and conferences. A formal course (*diplomado*) on participatory methods was offered in northern Potosí, Bolivia with the Universidad Técnica de Oruro.

Andean Change promoted communication among the participants, so they could exchange knowledge, e.g. on study tours to see the methods being applied. One delegation of native potato farmers from the department of Cundinamarca in Colombia visited the SEP cases in Bolivia before deciding to apply the method in their organizations. Before applying the PMCA, staff of partner organizations took a learning tour to the department of La Paz, in Bolivia. Partners and community members have also participated in annual meetings and knowledge fairs (*ferias de conocimiento*), where they discussed the participatory methods with people from other countries. Over 700 people participated in electronic forums between experts and facilitators of PMCA, PME and CIALs (Comités de Investigación Agraria Locales).

All of the documentation written by Andean Change and the information about the methods, cases, evidences and lessons learned is available on the interactive web site (www.cambioandino.org). Although most of the communication is in Spanish, there are also several papers and sections of the portal in English.

## **ANNEX 5. PRODUCTS AND PUBLICATIONS**

#### Peer reviewed publications:

Alvarez, S., Douthwaite, B., Thiele, G., Mackay, R., Cordoba, D. and Tehelen, K. 2010. "Participatory Impact Pathways Analysis: a practical method for project planning and evaluation." *Development in Practice* 20(8): 946-958.

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- No. 3. Las metodologías participativas, la competitividad y la innovación.
- No. 4. Mejorando la innovación y la competitividad en los pequeños productores de los Andes.
- No. 5. La innovación que incluye a los pequeños productores y productoras.
- No. 6. De la exclusión a la inclusión tecnológica agropecuaria.
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------. 2011c. Evaluación de Alcances e Impacto del Uso del Seguimiento y Evaluación Participativa (SEP): El caso Norte de Potosí, Bolivia.

——. 2011d. Evaluación de Alcances e Impacto del Uso del Enfoque Participativo de Cadena Productiva (EPCP): El Caso Leche de Altura, Oruro, Bolivia.

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- El caso fortalecimiento de organizaciones económico productivas, Norte de Potosí, Bolivia. 2010.
- El caso de la cadena productiva de las papas Nativa en el Norte de Potosí, Bolivia. 2010.
- El caso de la Evaluación Participativa de equipos de recolección manual de café en el Valle, Colombia. 2009.

Plus 25 short videos on www.cambioandino.org

## ANNEX 6. CAPACITY DEVELOPMENT

All of Andean Change's experiences (or cases) have strengthened capacities. Staff of the organizations that supplied the methods improved their teaching skills and their knowledge of the methods. The organizations that received the methods learned to use them (and in some instances to teach them). Even the farmers' associations and other grassroots organizations learned to use the methods. In many instances they claimed that the methods helped to strengthen their organizations.



accept CAD's suggestion to re-activate their potato producers' association.

The national R&D agencies learned that participatory methods help include the poor in development, and favour adoption of new technology which aims to alleviate poverty.

The partners gained much experience in writing and documenting their work (see Annex 5).

All of Andean Change's trainings were given by experts in the method (or the topic), which ensured a high quality experience.

In some cases there were trainings in specific topics, to strengthen local organizations (see Table A1). For example, Argentine cheese-makers came to Bolivia and taught the farmers' association to make mozzarella, which they continue to do. The women coffee processors in San Martín, Peru received training to improve their final product. Technical training like this has allowed these weak organizations to engage with a demanding market.

Name of capacity building event	Country	N° of events	N° of participants	N° of participating institutions
Capacity strengthening in PM&E	Bolivia, Colombia	10	180	37
Capacity strengthening in PMCA	Bolivia, Colombia, Peru, Ecuador	9	154	38
Capacity strengthening in ESF	Bolivia, Colombia	2	26	4
Capacity strengthening in CIALs	Colombia, Peru	3	73	17
Internet-based capacity strengthening in ESF	Web	1	50	8
Capacity strengthening in PM&E and ESF			42	7
Capacity strengthening in PTE	Colombia, Bolivia	3	39	6
Capacity strengthening in use of participatory approaches for research and development			80	6
Capacity strengthening in M&B	Peru, Colombia	2	30	8
Workshop: Facilitation tools for farmer's extension agents			52	
University diploma on participatory methods: PMCA, ODI, PM&E, and CIALs	Bolivia	4	18	5

Table A1. Capacity building events on participatory methods by Andean Change

Name of capacity building event	Country	N° of events	N° of participants	N° of participating institutions
Workshop: Managing on line tools	Peru, Bolivia,	3	44	
in the Andean Change web-portal	Colombia			
Learning tours: PMCA	Bolivia	1	18	8
Learning tours: ESF	Colombia	1	17	8
Learning tours: PM&E	Bolivia	1	12	6
Learning tours: ODI	Colombia	1	80	7
Electronic Forum: PMCA		1	400	
Electronic Forum: PM&E		1	330	
Electronic Forum: CIAL		1	183	
Forum: use of participatory approaches in research (INIAF)		1	46	1
Policy Incidence Forum	Colombia	1	180	several
Forum: PMCA and other participatory approaches for local development	Tarapoto, Peru	1	120	5
Forum: participatory methods for journalists	Bolivia	1	24	20
Knowledge and experience exchange in the Andean Change program	Bolivia	1	26	13
Total		49	2,224	204

# 1. FINAL REPORT SUMMARY SHEET FOR R4D

Title of Research Programme: National Agricul	tural Innovation Systems	s that Work for the
Poor. Building on the Bolivian Experience (INIS	- ANDEAN CHANGE P	ROGRAMME)
Reference Number:		
Period covered by report: 2007-2011		
Name of lead institution and Director: CIAT (In	nternational Centre for Tr	ropical Agriculture)
and CIP (International Potato Centre)		
Project Director: Graham Thiele		
Key partners:		
1. PREVAL (Regional Platform for Evaluation a	nd Systematization Capac	city Development in
Latin America and the Caribbean), Lima, Peru	l.	
2. PROINPA (Foundation for the Promotion and	Research of Andean Prod	ucts), Cochabamba,
Bolivia.		
3. IESE (Social and Economic Studies Insti	tute, Universidad Mayo	or de San Simón),
Cochabamba, Bolivia.		
4. Papa Andina Program, CIP, Peru.		
5. PBA Corporation, and its regional platform	for participatory plant b	preeding, Consorcio
Andino, Colombia.		
6. OFIAGRO, Ecuador.		
7. COLNODO (Strategic Use of Internet for Deve	elopment), Bogotá, Colon	nbia.
8. RIMISP (Rural Development Latin American G	Centre), Chile.	
9. CONDESAN (Consortium for Sustainable De	velopment of the Andear	n Ecoregion), Lima,
Peru.	-	
Countries covered by research: Bolivia, Peru, Ecu	ador and Colombia	
	Planned	Actual
Start Data:	1 October 2006	1 Lanuary 2007

		Planned	Actual	
ſ	Start Date:	1 October 2006	1 January 2007	
ĺ	End Date:	1 October 2010	31 March 2011	

## 2. SUMMARY

The Andean Change Alliance was created as a learning alliance in Bolivia, Colombia, Ecuador and Peru, partnering two CGIAR centres, CIP and CIAT, with regional organizations who shared a common vision. Andean Change compiled an inventory of 81 participatory methods including those that: i) link low income farmers to markets, ii) enhance social control over development projects, and iii) stimulate the participation of poor farmers in research. Seven were prioritized for broader dissemination. Direct training in participatory methods involved more than 700 participants. In addition, 50 different capacity building events reached more than 2,000 people and 50 different institutions. More than 65 nationally recognized facilitators for the seven methods were trained using trainers' guidelines. Andean Change supported 20 cases bringing together the providers of these methods with 17 different requesting partners who wanted to try them out. Providers carried out training and backstopping, and requesting partners implemented the method. Guidelines were prepared for rigorous qualitative and quantitative outcome and impact assessments of the application of the methods using participatory impact pathway analysis. Twelve impact studies of applying the methods in the cases and two synthesis studies looking at the fidelity of implementation and the validity of the theory of change for PMCA and PM&E and CIAL as well as a compendium describing the cases were published.

The studies showed that very poor farmers were able to take more responsibility for their development. For example, the PMCA not only linked smallholders to markets; it let the farmers communicate, negotiate and innovate with others in the value chain. The methods go to the heart of what Amartya Sen (1999) called "Development as Freedom" meaning that development goes beyond pure economic growth which is useful because of what it makes us free to do.

The Policy Roundtable was institutionalized in Bolivia where participatory methods are embedded in the recently created National Institute for Agricultural and Forestry research, and made significant progress towards influencing policy in Peru, Ecuador and Colombia. A web-based Policy Evidence and Argument Bank was developed as a resource for policy influence and advocacy including evidence from the impact studies. Six policy briefs on the contribution of participatory methods were prepared and disseminated to regional partners for use in policy incidence. An interactive web-based portal offers resources including a catalogue of methods, historical impact studies, the Policy Evidence and Argument Bank, and knowledge systematized with partners.

Summing up, Andean Change tested its hypotheses about how participatory methods lead to outcomes and impact with rigorous qualitative and quantitative impact assessments, providing empirical support for policies to reform national agricultural innovation systems. Critics say that participatory methods may work on a small scale for NGOs, but are too labour-intensive, site-specific, costly and unreliable to be replicated reliably. Andean Change has shown that with expert training, participatory methods do produce consistent results across a diverse range of projects without great additional costs. Many agencies adopted the methods promoted because they met farmers' demands. The Andean Change approach to achieving pro-poor policy change could be replicated in Sub-Saharan Africa and Asia.