



# MID-TERM EVALUATION of the INTEGRATED DEVELOPMENT PLAN FOR THE INTER-ANDEAN VALLEYS – SORATA (2008 - 2012)

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## i Acknowledgements

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# ii. Glossary

CEP Centro de Estudios y Proyectos

ISETA Instituto Superior de Estudios Teológicos Los Amigos

LDO Local Development Organisation

LPP Ley de Participación Popular (Popular Participation Law)

MTC Missionary Training Centre

NMA-B Norwegian Mission Alliance in Bolivia

PDIVI Plan de Desarrollo Integral de los Valles Interandinos (Integrated Development Plan for the Inter-Andean Valleys)

PDM Plan de Desarrollo Municipal (Municipal Development Plan)

PEI Plan Estratégico Institucional (Institutional Strategic Plan)

POA Plan Operativo Anual (Annual Work Plan)

SBB Sociedad Bíblica Boliviana (Bolivian Bible Society)

TN/Ha Tonnes per hectare

#### EXECUTIVE SUMMARY

The Integrated Development Plan for the Inter-Andean Valleys (PDIVI) was implemented in its second phase between 2008 and 2012, and it now has a two-year consolidation phase until 2014. This external evaluation was carried out between 18 February and 2 June 2013 by Centro de Estudios y Proyectos S.R.L. The field work was done between 25 April and 4 May, and included visits to 13 communities selected as a result of statistical sampling.

The Plan is structured around three programmes: i) the Human Development Programme, which includes education, health, safe water systems and organisational strengthening as subcomponents; ii) the Economic Development Programme, with the agriculture, livestock farming and micro-enterprise sub-components; and iii) the Diaconal Development Programme, which mainstreams diaconal work in all the projects. Gender equity, the environment and interculturalism are cross-cutting themes. The terms of reference for the evaluation stated that it should look at the criteria of pertinence, efficacy, impact, efficiency and sustainability, and these structure the presentation of this executive summary.

The Plan's proposed work, with its three programmes, is considered **pertinent** because of its fit with the local socio-economic situation and because it addresses aspects related to the main shortcomings in the area. Together with others, these constitute the causes of the underdevelopment that affects the three municipalities where the Plan was implemented. In this framework, the proposed projects in each of the programmes or components respond to local people's needs. In some cases, these had already been expressed in the demands presented to the municipal governments but they could not be addressed, mainly because of the lack of funds.

The pertinence of the Human Development component lies in the fact that it seeks to address the shortcomings identified by providing adequate infrastructure and equipment so that a better service can be offered to people in the target area. The situation is similar in education, where there is also a lack of school supplies and teaching materials needed to provide the service in better conditions. The diaconal development component is consistent with the organisation's religious nature, and its purpose is to enable people in the area of intervention to practice Christian principles and have a thorough knowledge of Jesus Christ's gospel.

The fact that the PDIVI links in with the Municipal Development Plans is considered pertinent because the joining of economic, technical and logistical resources enables a larger number of projects to be implemented and more communities and individuals to be reached than would have been possible if the work had been done separately. It also strengthens the municipal governments, which are legally responsible for development in their jurisdiction.

Implementation of the Plan has achieved a high degree of **efficacy** in all its components from the point of view of the fulfilment of activities, which in some cases amply exceeded what was planned. However, the situation is not the same when it comes to the fulfilment of the objectives that should have been achieved by the time the Plan's implementation was complete. One of the reasons for this situation is that when the Plan was designed and the objectives of each component were defined, variables such as migration, the perception that education in towns is more valued, and the allocation of health staff were not taken into account. Although these

variables influence the fulfilment of the objectives, they also depend on factors over which the influencing capacity was insufficient to be able to change them. Thus, in the health and education components, although the conditions for providing the service were improved, the objective of increasing coverage – in terms of healthcare services provided in the first case and an increase in school enrolment in the second – was not achieved. In the area of health specifically, the better conditions did not influence families to make use of the health services more often, while in education the numbers of children enrolled did not increase, and in some schools the number of students even fell, despite the support received. This shows that improving infrastructure, equipment and the provision of supplies is very useful but not sufficient to increase coverage.

The recommendation to overcome this constraint is to consider all the variables when the objectives are being defined and ensure that the objectives are in line with the organisation's real capacities. The additional variables include migration by families, which is driven by the insufficiency of economic resources and results in a reduction in the number of students in several schools. In the case of health, people are not accustomed to seek medical care preventively and only do so when they have a problem with their health. The health centres are viewed by local people as "places of illness" rather than "places of health", and this is compounded by the lack of health staff. All these factors have a negative impact on the goal of increasing coverage which was proposed in the Plan's objectives but is outside the scope of the organisation's work.

The installation of safe water systems and latrines has improved the living conditions of people in the communities, in some cases leading to a replication effect in families who were not involved in the projects supported by NMA-B. The collateral benefits of these systems are reflected in the families' improved health, as the sources of infection that existed before the systems were implemented have been eliminated.

In the time that remains before the Plan's extension and consolidation phase comes to an end, it is recommended that more emphasis should be placed on training the people responsible for operating and maintaining the systems. They should be given materials such as guides and manuals to enable them to carry out their work properly.

Achievement of the objective of improving the communities' agricultural production system and the marketing of their produce has been varied and uneven. The programme did not manage to work in depth on the conceptual side or carry out the integrated activities required to address the entire community production system.

In the management of natural resources and territory, the programme has achieved an extensive raising of awareness about the natural resources present in the local area. It has also provided training on sustainable environmental management and created a culture of forest resources use and production.

The integral nature of the actions in the economic development and production programme should be reflected in their links and integration with the human development programme (education, health, basic sanitation) and the diaconal development programme. There is no evidence that community production and economic aspects were clearly included in the work in the formal education and health sectors, for example by introducing content related to the economic and productive innovations contributed by the programme in the school curriculum, or by linking food security to preventive healthcare in the services provided by the health centres.

The first noticeable **impacts** are the improvements in the living conditions of the people involved in the projects. This is especially so in the case of the water and micro-irrigation systems. In the case of the former, they have made people's lives easier because they no longer have to invest time and effort in fetching water, thanks to having a water supply inside their homes. In the case of the

latter, the supply of water for irrigation has made a positive contribution to the local economy, because agriculture is the main productive activity in the region and the current occupation of 85% of the economically active population.

The arrangement of obtaining a counterpart contribution from the beneficiaries is an aspect that helps to generate a sense of ownership of the projects, but it also leads to the exclusion of people who cannot afford to make that contribution. Thus, the benefits tend to accrue to the comparatively better-off groups with more resources, rather than to the most vulnerable groups. There are also people who are ill and unable to make their contribution in the form of labour. The strict position towards them is to refuse to allow them to benefit from the projects. Although the organisation promotes solidarity in the communities, it is not in a position to oblige them to practise it.

Work should be done with the people involved in the projects so that mechanisms based on justice and solidarity can be established to enable those people who – for reasons of financial constraints or health problems – are currently excluded to access the benefits of the projects. The generation of development processes requires certain capabilities that the most vulnerable groups often lack. Therefore, differentiated actions could be considered for future initiatives, working on development with the people who have more resources and carrying out social assistance activities with the most vulnerable groups. This would be a way to avoid deepening the differences within communities.

The fact that the community members themselves managed their projects increased their self-esteem, enhanced their management capacities, and encouraged a sense of responsibility, social oversight, transparency and trust as the basis for the relationship with cooperation organisations.

Contact was made with leaders of different denominations (the Quakers, the Lutheran Church, the Seventh-Day Adventist Church and the Assemblies of God), and several of them have made a commitment to replicate what they learned in the training events with the leaders of local churches.

From the point of view of **efficiency**, the involvement of the administration committees in project management meant that a small team, working to cover a large area with scattered communities and the population of three municipalities, was able to fulfil the planned activities. It also enabled optimum use to be made of financial resources.

The organisational structure allows the area team to act with quite a high level of autonomy. This is positive in the sense that it speeds up the implementation of activities. However, it was also noticeable that there are no spaces for the team to meet with the other areas to exchange experiences that could mutually enrich their work. Thus, an opportunity to improve the efficiency of the work is being lost.

The monitoring work and resulting reports focus on whether activities have been carried out. They fail to assess achievement of the Plan's objectives, let alone how these contribute to the organisation's strategic objectives or the goals set out in its Strategic Plan. The Strategic Plan is supposed to be the most important working document – it is the "navigation chart" that should guide the work of all the teams. Thus, the PDIVI projects, understood as an integral part of its programmes, are the means to achieve the objectives and, above all, the organisation's mission and vision as expressed in its Strategic Plan. Monitoring and reports should therefore also indicate the extent to which the organisation's strategic goals have been achieved.

As a result of the organisational assessment carried out by PwC, it was recommended that

the posts of Technical Coordinator and Planning Coordinator should be merged. The reason for this was the analogy and similarity of the tasks they performed, which gave rise to a "duplication of roles." This led to the creation of the post of Operations Coordinator, whose main roles are planning, monitoring and evaluation.

In the opinion of the evaluation team, this merger led to the tasks being concentrated in one person, with the imminent risk of negatively affecting efficiency in the organisation's work. The similarity of tasks could have been resolved by means of a better definition of the roles and responsibilities of each post.

It is recommended that the planning and monitoring role should be separated from the evaluation role, since the same person cannot act as judge and jury.

It is also necessary to design a monitoring and follow-up system that provides support to the teams, rather than merely playing an oversight role. It should gather and systematise information and produce reports suited to the needs of the different parts of the organisation, so that the information can be used for decision-making. In the interviews with central office staff, it was stated that adjustments are currently being made to the monitoring system, and this should obviously overcome these constraints. The reports that were made available to the evaluation team merely describe the implementation of activities and do not include analysis or recommendations. In short, they are not useful for decision-making.

One important factor for **sustainability** is that the system of working with the administration committees brought the communities together around the projects, enabling them to develop a sense of ownership and responsibility and enhance their capacity to negotiate. In other words, they are the ones who implement the projects, while the role of the technical staff is that of facilitators.

With regard to this, in the time that remains, it will be important to take forward advocacy work with local and even national authorities so that this way of working is taken on board by other organisations coming in to the region. If possible, this decision should be included explicitly in the Municipal Organic Charter which is likely to go through an adjustment and review process.

# I. INTRODUCTION AND BACKGROUND TO THE EVALUATION

#### 1.1. Background and context

The Norwegian Mission Alliance in Bolivia (NMA-B) is an evangelical Christian non-profit organisation. It began working in Bolivia in 1979 with Norwegian volunteers in marginal districts of the city of La Paz. Following its legal registration in 1980, its work was formalised in district 1 in the city of El Alto (Area 1), with activities in health and education. This was extended to Los Andes province (Area 2), and later to Pacajes province (Area 3), where water systems began to be installed. The state reforms ushered in by the enactment of the Popular Participation Law (LPP) marked the start of a municipal decentralisation process, whereby local governments were given new roles and the responsibility for local development, based on participatory planning processes. In this new scenario, the organisation's work linked in with the participatory planning processes and it reached agreements with municipal governments. Its work was also extended to include Caranavi province (Area 4). 1997 was a milestone year in the organisation's life, as this was when it started to be managed by Bolivian staff.

The organisation started working in the inter-Andean valleys region in the year 2000. Implementation a two-year pilot plan in the municipality of Combaya in Larecaja province (2000-2002) was followed by the first phase of the Integrated Development Plan for the Inter-Andean Valleys (PDIVI 1, 2003-2007), with three programmes: i) the Human Development and Institutional Strengthening Programme, which included education, health, basic sanitation and organisational strengthening components; ii) the Economic Development and Natural Resources Programme, comprising micro-irrigation, agricultural production and livestock farming, natural resources and small-scale industry; and iii) the Diaconal Development Programme. The Plan's second phase (PDIVI 2) ran from 2008 to 2012, and is the subject of this evaluation.

The PDIVI was carried out in a context of transition and the implementation of important reforms in the Bolivian state, which in 2008 was in the midst of a period of discussions in the setting of the Constituent Assembly. This was followed in February 2009 by a referendum on the resulting constitution and finally by the enactment of the new Constitution of the Plurinational State. This new scenario of state reforms is characterised by:

- A high level of social and political participation by historically excluded sectors, especially rural and indigenous peoples.
- A deepening crisis in the political party system.
- The inclusion of leaders of social movements in political decision-making spaces, in the structures of the state at the ministerial cabinet level or in managerial positions in public administration.
- The revaluing of interculturalism and a higher profile for the indigenous peoples of the Eastern lowlands and the Amazon region.
- Increased state involvement in the economy.
- The formalisation of departmental, regional, municipal and indigenous autonomies.

The Plan was implemented in three municipalities in Larecaja province (Combaya, Sorata and Quiabaya), although only support activities were carried out in the municipality of Combaya and

most of the work was concentrated in the other two municipalities. The Plan's area of coverage comprises six cantons – two in Combaya, three in Sorata and one in Quiabaya – and a total of 116 communities.

Table Nº1 PDIVI 2 coverage

TUDICIT	1 BIVI 2 coverage	
Municipality	Canton	Nº of Communities
Combaya	Combaya	11
	Sorejaya	3
	Ilabaya	32
Sorata	Laripata	21
	Sorata	24
Quiabaya	Quiabaya	25
Total	6	116

Source: NMA-B

This target area is characterised by its rugged geography, with thin soil, steep hillsides and altitudes ranging from 2,000 to 4,000 metres above sea level. This range of altitude means that the region has three ecological levels: puna, high mountain valleys and sub-tropical valleys. The average temperature is around 18 degrees centigrade and average annual rainfall is 830 mm.

Land tenure is limited to small plots and each family has an average of between one and three hectares, distributed between the different ecological levels as part of a strategy to enable people to access the best possible production conditions. Land is constantly being subdivided into smaller and smaller plots, as families distribute it among their children as their inheritance. This represents a constraint because the main productive activity in the region is agriculture combined with livestock farming, mainly of sheep. An estimated 85% of the economically active population in the area is involved in farming, although people also work in mining and tourism, and the latter sector has a high potential for growth.

The population is predominantly of Aymara origin, and the main languages spoken in the area are Spanish and Aymara. Its socio-economic characteristics are reflected in high levels of poverty. It is estimated that about 90% of the population is living in poverty; illiteracy rates are around 24% in men and 42% in women, and average life expectancy is 64 years. There are widespread deficiencies in the provision of basic services such as clean water and sanitation. The education and health sectors have insufficient infrastructure, furniture, and teaching and learning materials.

The municipal governments face difficulties of both a financial and a technical nature that prevent them from meeting the population's needs adequately. In the case of Sorata, this situation is aggravated by internal institutional problems that affect the governance of the municipality.

The customary form of organisation at the community level is the rural trade union, which plays a role that is almost exclusively one of representation and channelling demands. This has led to the emergence of other types of functional organisations, such as the committees that oversee public works or infrastructure projects, and the organisational structure has become more fragmented as a result.

This is the context in which PDIVI 2 was implemented. To start with, it was envisaged that a final evaluation would be carried out at the end of the Plan's original implementation period. However, the management of NMA-B and its funders decided to extend its implementation

period for a further two years in order to complete certain tasks and consolidate key aspects related to the sustainability of the projects and their benefits. The final evaluation therefore became a mid-term evaluation, and it was carried out by an external organisation contracted under the output-based consultancy arrangement.

# 1.2. Evaluation objectives

As stated in the terms of reference, the objectives of the evaluation were as follows:

#### a) General Objective

Assess the degree to which the objectives set in all the components of the PDIVI have been achieved by the end of the second phase of the Plan's implementation, and identify the factors that facilitated and/or hampered the implementation process, in order to capitalise on the experience gained and generate learning that can be used by NMA-B, municipal governments, community organisations and beneficiary families.

#### b) Specific Objectives

- Undertake a technical evaluation of the activities and the objectives achieved by the Plan and its projects, and assess their sustainability.
- Assess the extent to which the objectives and results expected from the Plan's implementation have been achieved.
- Generate a process of institutional learning that will enable NMA-B and its local partners to identify positive and negative aspects in the working strategy and propose recommendations.
- Arrive at conclusions that contain elements of reflection and learning with regard to the implementation of the Plan (design, implementation, achievements, difficulties, etc.).
- Identify lessons learned that can be included in future contracts, plans, projects and actions.

The evaluation was highly participatory and characterised by constant interaction with the different parts of the organisation in both the NMA-B central office and the area team, coordinating and agreeing on activities at different times. The main role of the organisation's teams was to provide the information required and coordinate the work with the other stakeholders. The beneficiary communities played a leading role during the field work, providing information, participating actively in the reflection spaces, and putting forward recommendations. Separate information and analysis meetings were held with municipal government authorities.

The structure of this report follows the guidelines set in the terms of reference, and it therefore contains five chapters, preceded by an executive summary. Chapter one describes the background to the Plan being evaluated and the context in which it was implemented. Chapter two describes the evaluation's methodology, while chapter three presents the findings in each component, taking into account the criteria of pertinence, relevance, efficacy and sustainability. Chapter four presents the conclusions and recommendations, and the fifth and final chapter summarises the lessons learned.

## II. METHODOLOGY

#### 2.1. Approach

The evaluation adopted the usefulness approach, which implies focusing on the applicability of the evaluation report as a strategic guide for decision-making by the stakeholders involved in the Plan. These are: NMA-B, at both the central office level and in Area V, the beneficiary population, and municipal government authorities. Thus, in addition to the information-gathering activities, spaces for joint critical reflection with the technical team and the beneficiary population were organised. The technical team and the beneficiaries played the leading role in these events, while the evaluators acted as facilitators and ensured that the conditions and the atmosphere were propitious. Communication in the communities was done in Aymara and Spanish, depending on which language the participants were most comfortable with.

#### 2.3. Definition and size of the sample

The method adopted was stratified sampling by municipality, taking each community as a conglomerate. The main sampling criterion used was the total number of families who had benefited from the implementation of irrigation systems, since this was the only type of project that had been carried out in all three of the target municipalities. The calculation parameters included a maximum variation, a confidence interval of 95% and a sampling error of 10%. The size of the sample thus determined was 206 surveys.

The following criteria were used to select the communities to be visited:

- Concentration of components. Priority was given to communities that had projects in the areas of economic, human and diaconal development, in order to be able to assess the full spectrum of the work carried out.
- Accessibility. Bearing in mind the distance between the communities and the time available
  for carrying out the evaluation, priority was given to those that were easier to access, both in
  terms of physically travelling to the community and with regard to their inhabitants' willingness
  to participate.
- Geographical conditions. Visits were made to communities at different ecological levels and with different production and social conditions.

Thus, visits were made to thirteen communities in the three municipalities. The list of communities is presented in the table below:

Table №2	Sample communities	
Municipality	Community	No of surveys
	Condorpata Ladrilluni	15
	San Pedro	16
Sorata	Karani	19
	Chejje	22
	Atahuallpani	17
	Pacollo	15
Combaya	Ticamblaya	17
	Milliraya	16
Quiabaya	Chacambaya Grande	16
	Coribaya Grande	10
	Markupata	18
	Sumuco	10
	Yanarani	15
TOTAL	13	206

Source: Evaluators' own data

## 2.4. Methodological process, techniques and tools used

The evaluation was conducted in three phases:

- a) Preparation or planning phase. This involved drawing up the definitive work plan, receiving and reviewing information in the form of project documents, identifying complementary sources of information, formulating working hypotheses, determining the key aspects to be evaluated, and developing the information-gathering tools. During this phase, coordination meetings were held with the NMA-B technical coordinator and the Area V team leader.
- b) Field work to collect primary information. This began by holding an initial workshop with central office staff to gather information about the main institutional development benchmarks. The aim of this was to reach a precise understanding of the process followed by the organisation since its creation, placing emphasis on how its approaches, its working methods, and its thematic and geographical areas of coverage have changed and evolved. During the second half of the workshop a self-evaluation exercise was conducted, looking at every component of the Plan and identifying the factors that facilitated or hampered its implementation. The purpose of this was to gather views from within the organisation and compile first-hand information that would be compared, complemented and adjusted during the field visits to the communities in the target area.

Another workshop was held in Sorata with the whole team responsible for implementing the PDIVI. This activity reconstructed the process followed, from the preparation to the implementation of the Plan. The workshop placed emphasis on operational aspects. It combined group work to gather specific information on each programme and component with a plenary session to analyse this information together. The definitive plan for the field work in the communities was also drawn up during this workshop.

The work with the organisation was complemented by in-depth interviews with the Director, the Technical Coordinator and the Area V Team Leader.

The work in the communities was done with focus groups whose participants were drawn from the projects carried out there. Two focus groups were organised in most of the communities, ensuring that an equal number of men and women participated, either together or separately, depending on the nature of the projects and the characteristics of the community. In the community of Chejje, a focus group was run with schoolchildren. In addition, survey interviews were carried out with informants identified on the basis of the lists of beneficiaries provided by NMA-B. This work was complemented by semi-structured interviews with key informants. In each of the communities, the evaluation team conducted a direct field inspection of the irrigation systems, crops, and education, health and basic sanitation infrastructure.

The evaluation team also worked with municipal government authorities, carrying out group interviews with their executive staff and municipal councils.

In addition to the information-gathering work, in each of the communities reflection meetings were held to discuss the implementation of the projects and other issues of interest to the beneficiaries. These workshops concluded with a feedback session in which the evaluation team expressed their views of the work done in the projects and offered recommendations on the issues identified as important for the community. The evaluation team also answered community members' questions.

c) Systematisation of the information and writing of the report. This work was done in the office and involved processing, systematising and analysing the information gathered, in internal meetings with the whole team and bilateral meetings between the people responsible for the components and between them and the evaluation coordinator.

A preliminary version of the report was sent to NMA-B for its consideration. Having analysed this draft report, NMA-B made observations and suggestions, and these were taken on board to produce the final version of the report.

#### III. FINDINGS

#### 3.1. Pertinence and relevance

The pertinence and relevance of the PDIVI is analysed with reference to local problems, how it links in with Municipal Development Plans and whether it meets the expectations of the target population.

#### 3.1.2 Relevance to local problems

Based on the assessment of the Municipal Development Plans, the review of documents related to the local area and the field visit, it can be stated that, in general and with certain variations, the situation in the three municipalities is deficient with regard to education, health and production.

In health and education, the deficiencies identified mainly involve infrastructure. This is inadequate and does not meet the minimum requirements for providing an efficient service, as well as being in a poor state of repair. The lack of school furniture in some communities obliges them to improvise desks and seats for students using local materials such as adobe bricks and wooden boards. The lack of suitable housing for teachers is a factor that discourages them from staying in the school, especially in communities that are a long way from the nearest town. Widespread poverty means that families are unable to buy their children the necessary school materials, bearing in mind that the average number of children per family is more than four. All these factors have a negative impact on education, with high drop-out rates and repetition of the school year.

Deficiencies in infrastructure and equipment are also noticeable in the health sector. Some communities do not have a health post, and many people have to travel long distances to receive medical care. This obliges them to resort to traditional medicine. Although this is very useful, its ability to treat certain diseases is limited. Another factor that has a negative effect on health is the non-existence, insufficiency or poor quality of basic water and sanitation systems.

The agricultural production system is characterised by being extensive, based on the strategy of minimising risk, the use of family labour and rudimentary technology, the small size of plots of land (an average of 1-3 hectares per family in scattered plots), the lack of irrigation infrastructure to enable optimum use to be made of local water resources, and significant ecosystem degradation. These and other factors that limit the main economic activity are reflected in the low level of diversification of agricultural and livestock production and the low incomes that affect family wellbeing.

Organisational weakness and the low level of participation by women limit the possibilities of planning and managing development based on local capacities, creating a high degree of dependence on outside support.

In this context, the Plan is pertinent in all three of its programmes: human development, productive economic development and diaconal development. The human development

programme's education component is relevant as it seeks to improve education conditions by building or improving school infrastructure and housing for teachers, equipping schools by providing furniture, teaching and learning materials and supplies, and facilitating training for teachers.

The pertinence of the Human Development Programme lies in the fact that it seeks to address the shortcomings identified by providing adequate infrastructure and equipment so that a better service can be offered to people in the target area. The situation is similar in education, where there is also a lack of school supplies and teaching materials needed to provide a good service. The diaconal development component is consistent with the organisation's religious nature, and its purpose is to enable people in the area of intervention to practice Christian principles and have a thorough knowledge of Jesus Christ's gospel.

The NMA-B productive economic development programme is pertinent in its definition and implementation. This is firstly because the production system in the inter-Andean valleys region is predominantly agricultural. The communities' economic strategies and food security are based on this sub-system, despite the serious constraints that affect it in terms of technology, infrastructure, size of plots of land (smallholdings), environmental sustainability and ease of access to the market. The emphasis of the programme designed to intensify the agriculture sub-system is consistent with the need to minimise the risks involved in extensive agriculture (drought, irregular rainfall and degraded soil) and overcome the lack of capacities (technical and financial), in order to diversify production, improve productivity, add value, facilitate the sale of produce and introduce sustainable environmental management.

The programme has also worked extensively to improve the livestock farming sub-system (extensive and complementary), where the traditional technology used suffers from serious constraints in terms of infrastructure (stables, fodder stores, sheepfolds), animal health, genetic improvement, feeding, adding value and marketing. Likewise, an extensive component was designed to promote the sustainable use of natural resources. This principally seeks to address environmental degradation in the local area and develop the potential of the forestry sub-system to protect the ecosystem and produce wood.

#### 3.1.3. Links with PDMs

The strategy of linking in with Municipal Development Plans is appropriate as it acknowledges and strengthens the local development promotion role conferred by law upon municipal governments. It is also clear that the Plan and the organisation's work are aligned with national public policies set out in both the Constitution and the National Development Plan. This strategy is pertinent, bearing in mind that small municipal governments like those in the Plan's target area lack financial resources and human resources with a sufficient technical capacity to address the needs of local communities, as identified in planning processes. Furthermore, this strategy avoids the duplication of roles and the dispersal of effort, enabling a greater impact to be achieved.

By linking in with PDMs, the projects and their results are more likely to be sustainable. The reason for this is that as the target population and the municipal governments adopt, institutionalise and take ownership of the proposal, the projects, their approach and management tools, these will endure after NMA-B has withdrawn from the area.

## 3.1.4. Compatibility with the beneficiaries' expectations

Rural people in general and those in the area covered by the PDIVI in particular have multiple needs that require the availability of resources, both from local government and from cooperation agencies working in the region. Therefore, the support that can be channelled to different areas is aimed at meeting one or more of these disadvantaged people's needs.

The proposals and projects contained in the PDMs are determined as a result of the participatory planning processes in which community members present the demands they have prioritised, through their representatives. Because the PDIVI supports the implementation of the PDMs, the projects it supports correspond closely to the expectations of the beneficiary population. Based on the review of the documents and the analysis of the information gathered during the field work, in both the workshops and the interviews, it can be affirmed that the projects implemented in the programmes and their different components are likewise compatible with these expectations. In all the communities visited, people stated that the projects implemented met the community's needs and that the prioritisation of these projects was reached by consensus. People also expressed their general satisfaction with the projects in the three programmes.

The cross-cutting themes constitute the added value in the NMA-B proposal. The work in the diaconal component had an impact on the restoration and transmission of values through the specific activities that were carried out with church leaders and community members, as well as the behaviour of the technical team, which was characterised by dedication, responsibility and transparency.

The system of having the project resources managed by community committees should be highlighted. These committees were responsible for obtaining quotes and for buying, storing and distributing the materials and supplies for the projects. This form of administration is important in enabling the beneficiary communities to take ownership of the projects. It encourages social oversight, the sense of responsibility, transparency and trust in the organisation and its technical teams.

# 3.2. Efficacy

Efficacy is determined by comparing the results achieved with those that were planned.

This evaluation looks at the period from 2008 to 2012. This was the time envisaged for completing the implementation of the Plan when it was designed, although it has now been extended for an additional two-year period when the work will focus on consolidation activities prior to the definitive completion of the Plan and the organisation's withdrawal from the area. Thus, it is relevant to assess efficacy in terms of the achievement of the objectives/results of the Plan, its programmes and components. The purpose and objectives of the Plan were as follows:

**Purpose**: Improve the living conditions of rural families in the inter-Andean valleys by meeting their social and economic demands, strengthening their organisations, and including men and women in sustainable local development processes.

## Results

1. The conditions and coverage of education, health, clean drinking water and sanitation services have improved, in line with the country's development plans.

- 2. Local organisations, men and women participate actively in decision-making on local and regional development.
- 3. Irrigation systems and their coverage, the communities' agricultural production system and the marketing of their products have all improved.
- 4. Natural resources in forestry, beekeeping and flower-growing are used and managed sustainably.
- 5. Micro-enterprise development is strengthened.
- 6. The diaconal work of the local churches is strengthened, and families, schoolchildren and young people in the communities have stronger Christian principles and values.
- 7. Greater understanding of environmental, gender and diaconal issues in the projects.

In this framework, the Plan generally shows efficacy in fulfilling the number of activities proposed and reaching the targets set in terms of infrastructure projects or events carried out. Nevertheless, it is difficult to determine whether the objectives have been achieved because of the absence of baseline information that would enable a comparison to be made with the situation at the start. Furthermore, there are certain variables that were not taken into account when the objectives were defined and could not be influenced. In the case of health and education, the actions taken could not by themselves have a decisive influence on increased coverage, in terms of more services provided in the case of health and a larger number of children enrolled in school in the case of education. There are variables that it was not possible to influence to any great extent through the activities carried out. These variables include the temporary or permanent migration – to mining areas, for example – which forms part of people's strategies to generate additional income. There are also subjective factors such as people's belief that the quality of education is better in the schools in towns, or the prestige of going to school in a town.

In the **health** component, good results have been achieved in terms of the building and equipping of health centres. One outstanding example is the health centre in Quiabaya, which was provided with X-ray equipment. According to the surveys carried out as part of the field work, about 90% of the people interviewed have noticed an improvement in the healthcare provided, and 36% mention equipment as the main reason for this improvement. More than 90% of the people interviewed have gone to a health centre seeking care. About 60% of them did so because they were ill or had had an accident, but only a very small percentage went for prevention purposes. 73.7% stated that the healthcare provided is good, and the remaining 26.3% judged it acceptable. Furthermore, over 90% would go back to the health centre, 50% because of the quality of care and 18.4% because it is nearby. One aspect to take into account is that 74.4% of the people interviewed also make use of traditional medicine.

The results provide clear evidence of the efficacy of the work with regard to the part of the objective that refers to improved conditions. It is not possible to draw firm conclusions about the increase in coverage, due to the lack of information about the number of services provided in the health centres and the absence of baseline data.

Efficacy is evident also in **basic sanitation**. Although the logical framework does not include an indicator on the number of systems to be built, it is reported that about 19 systems were installed in an equal number of communities during the Plan's implementation period. In some cases these were complemented by the installation of latrines and in others by public toilet blocks, depending on the families' preferences and requirements. The number of beneficiary families is about 630. According to the logframe indicator, the target number of beneficiaries was 1,200 families, so the level of efficacy is slightly more than 50%. Good results were achieved in terms of the number of operators trained.

According to the surveys, more than 80% of the people who now have a water system thanks to NMA-B's support state that they have enough water to meet their needs all year round, and more than 90% say that they have sufficient water for their day-to-day activities. As far as water quality is concerned, 97.2% state that the water they receive is crystal-clear. The information about water use practices indicates that 48% of the people surveyed boil the water before drinking it and 24% purify it by means of the SODIS system.

The **education** component has achieved a high level of efficacy in terms of the building of infrastructure, as the level of fulfilment of what was planned is 174% and more than 200% with regard to housing for teachers. The level of achievement is also high in the equipment for schools. Furthermore, school supplies and teaching materials were provided, although there is no specific indicator on this in the logical framework. The training provided to teachers shows a level of efficacy of around 69%, while with regard to the medical and dental care provided to schoolchildren it is 40%.

With regard to the perceptions of the people surveyed, the results are as follows:

89.6% stated that conditions in the schools have improved thanks to the support received from NMA-B. With regard to coverage, 36.8% stated that the number of children enrolled in the schools has increased. 12.3% attributed this increase to the improved infrastructure and 1.8% to the equipment. 10.4% have not noticed any change and 25.8% state that coverage has decreased.

Based on the review of documents, observations in the field and the surveys, it can be said that there has been an undoubted improvement in the conditions in schools, both for the children and for the teachers. However, there is no evidence for an increase in coverage. In some communities, the number of children enrolled has actually fallen, despite the improved conditions. This latter finding should be understood in the light of the context in the region and the existence of external factors that are outside the Plan's control.

In the area of production, work was done to improve the production system, irrigation systems and their coverage, marketing and the processing of products to add value to them.

With regard to the work in the micro-irrigation component, it can be concluded that the indicator target established at the start of the Plan – construction of micro-irrigation infrastructure on a total of 300 hectares of land used to grow crops – has been amply surpassed. According to the annual reports and the information provided to date by the technical team, the total area of land now under irrigation from systems implemented by the programme is 495.87 hectares (see Annex, Table N° 1), and the total number of micro-irrigation systems implemented is 22 (3 systems are currently being completed). Therefore, the area of land irrigated by the programme has surpassed the target by 195.87 hectares. This can be attributed partly to the funding for irrigation provided by DIACONIA FRIF (US\$16,944). The target set initially has been achieved with a high level of efficacy.

In the area of natural resources management, it can be stated that achievement of the established targets has varied. Construction of the 2 proposed tree nurseries for forestry has been completed (benefiting 743 families). Thanks to these nurseries, approximately 20,000 seedlings of fast-growing exotic tree species and native tree species have been produced and planted per year (see Annex, Table N° 2), thus achieving the proposed indicator. Likewise, 16 training and information events on natural resources management have been held, and these have raised awareness and developed a forestry culture among 677 producers in the

communities. With regard to the installation of beekeeping equipment, the expected results have not been achieved, as only two or three hives have been established in one community.

In the area of **soil conservation**, it was found that in the case of fruit production (peaches and custard apples), the building of terraces was included in the areas where the trees are planted. In the areas of irrigated agricultural land, in some cases it was found that irrigation channels have been dug on the level, although in other cases it was noticeable that the irrigation channels follow the slope. It should be pointed out that the communities in this region still use and maintain pre-Columbian water management technologies: slow-forming terraces, canals, *kotas* and *kotañas* (reservoirs and natural storage tanks). However, this aspect was not given priority by the programme, despite how important it is for defining a management model for essential resources – soil and water – under a watershed approach.

Implementation of the programme's **agriculture** component has reached a total of 33 communities and 516 beneficiary families (see Annex, Table Nº 3). 12 of these communities (168 families) have worked on flower production, and 164 greenhouses have been built there (according to the reports). This means that the indicator has been surpassed, as the established target was to build one item of basic agricultural infrastructure per year (although the indicator does not specify if this is per community). 13 communities (208 beneficiary families) were supported to improve potato production; work was done with 2 communities (49 families) to improve pea production; work to improve peach production was carried out in 5 communities (69 families); and custard apple production was improved in one community (22 beneficiary families).

Another indicator envisaged increasing the yields of 5 of the region's traditional crops, with the participation of 300 families per year on average. The information from the community self-evaluation reports and the survey (see Annex, Table N° 4) indicates that yields of potato crops have increased by more than 100% (from an average of 6 TN/Ha to 13 TN/Ha); a similar increase has taken place in yields of pea crops (from an average of 0.8 TN/Ha to 1.6 TN/Ha); in the case of custard apple improvement, the increase in the yield is about 66% (from 3 TN/Ha to 5 TN/Ha); as a result of the improvement of peach trees, community members estimate that yields have increased by about 20%, although in terms of quality they report a substantial improvement. A significant quantitative and qualitative change has been achieved in flower production: with the introduction of new varieties (Lilium), yields and productivity have increased from their previous levels when Gladioli were being grown. With all these results, efficacy in the achievement of the proposed indicator can be highlighted.

In the **livestock** component, the programme has carried out extensive work with the organisation of 11 animal health campaigns, especially at the municipal and community level, benefiting 997 families (see Annex, Tables Nº 3 and 5). This support involved providing livestock farming supplies to 750 families. In terms of infrastructure, the component built anti-parasite dips in two communities (58 beneficiaries), and 15 sheds for egg-laying hens in four communities (21 beneficiaries). Work was done with one community (nine beneficiaries) on fattening beef cattle. This work was accompanied by the training and information provided to 643 livestock producers in 21 events. In the areas of animal health, infrastructure, livestock improvement and training, the established targets were surpassed, achieving a high level of efficacy. By contrast, no activities or results were reported in the areas of pasture improvement, animal carrying capacity and equipment for associations of livestock producers.

The Plan's initial appraisal found that little value was being added to agricultural products, and the objectives and indicators in this component refer to the setting up of micro-enterprises to process agricultural products. However, the only result reported in this area is the implementation of two bakeries in the municipality of Combaya. These are currently not operating

because the sales price for the bread produced is very low, while the price of the raw materials – maize and wheat – has risen. Given the importance of this component, both for the viable sale of produce in the market and for the communities' food security, the programme has started to experiment with fruit processing in some communities (Condorpata) to produce peach jams and dried peaches, for example, with interesting results.

Despite the importance of the marketing component in integrated development, no substantial work or results are reported, although actions of a specific and to some extent cross-cutting nature have been carried out in agricultural development. One example is the market vision introduced through the project's technical assistance, whereby the women's association started growing flowers (Lilium) that are high quality and fetch a good price in the market. Once the contacts were made so that plant material for reproduction could be imported, support was provided in the first marketing operations, resulting in a significant profit. The marketing strategies used by the communities have been strengthened by means of investment, business links and strategic approaches.

The overall aim of introducing improved varieties and new crops (see Annex, Table Nº 6), together with technological development, was to build marketing strategies, but these have not been addressed systematically or in any depth. This may be due to the lack of market research studies and the absence of marketing specialists in the team. In any case, much of the sustainability and impact of intensive and integrated agricultural development depends on its viability (profitability) in the market. Although the marketing component is mentioned in the Plan's objectives, there are no indicators or targets, and no allocation of a budget or staff to address this important area of work.

The **Diaconal** component relates to the organisation's very essence and identity and is considered part of everything it does. Its objective is to strengthen the diaconal work of local churches and reinforce Christian principles and values in families. It therefore proposed to train an average of 50 leading pastors per year, carry out 3 joint activities per year with churches of different denominations, and arrange for 30 education centres to participate in orientation and integrated training events. The training for pastors shows a high level of efficacy of around 80% in terms of the number of pastors trained, but it was not possible to determine the extent to which the joint activities with other churches have been carried out.

Community leaders have participated in training to strengthen their community management and administration skills with ethical values. The interviewees in the communities spontaneously mentioned that the values reflected upon in the theoretical and practical training workshops with the help of NMA-B staff were: love for one's neighbour 14.1%; respect 12.6%; unity 6.8%; honesty 3.9%; solidarity 3.9%; transparency 2.9%; and responsibility 2.4%.

It is quite striking that the concept of the Kingdom of God and what it implies for the integrated development work that NMA-B is carrying out was not mentioned by members of the congregations as one of the teachings they received from the organisation's staff or the teachings of the leader or pastor from the local church.

Organisational strengthening is carried out through the organisation's work with the Administration Committees that are set up around the projects. The members of these committees are given training on administrative matters, monitoring, and operation and maintenance in the case of the water and irrigation systems. It is noteworthy that the Local Development Organisations have close ties with the municipal governments and act as the link between them and the communities. The strengthening of these organisations takes place in practice in the management and administration of the projects. In the case of women, these issues are worked on in alternative training courses which include content aimed at enabling them to exercise leadership on the basis of the skills developed.

## 3.3 Impact

Taking into account that impact refers to the achievement of long-term changes in the setting, it is advisable to identify it when some time has elapsed after the end of the activities or the withdrawal of the organisation. The following points should therefore be understood with that consideration in mind.

One initial finding is that as a result of the presence of NMA-B and the implementation of the Plan, with its three programmes and all its components, changes have been achieved in the communities through the improvements in their inhabitants' living conditions.

In the human development component, the construction of safe water systems and the installation of latrines or public toilet blocks have brought about an important change in people's way of life, making their lives easier as they no longer have to fetch water from elsewhere. The families' health conditions have also improved.

The infrastructure that has been built implies an increase in the communities' assets per se, both for the families whose assets have increased as a result of having a safe water supply or access to latrines, and for the community as a whole. In some cases, such as Chejje, the improvement in education conditions with the construction of the school has raised the community's prestige, as reflected in the fact that students from other communities are attending the school.

A growing process of empowerment of the local population through the management of the projects by the community members themselves has led to an interesting process whereby people take ownership of the projects and develop a sense of responsibility for them, thus raising their self-esteem. This shows that despite the adverse conditions in which they live, they have the ability to manage their projects and thus their own development.

The most important impact of the micro-irrigation component is that it has led to the intensification or semi-intensification of community production systems by minimising the risk factors that affect extensive or rain-fed agriculture, such as drought or variations in rainfall patterns. Agricultural production has now been freed from the vagaries of these factors.

During the field work it was found that rising agricultural development has started to have an impact on demographic stability: preventing migration and encouraging people who migrated in the past to return. As one community member put it in a workshop, "with the micro-irrigation we have made our land more fruitful, and the people who went away will be coming back." It should be highlighted that one of the most important impacts in this regard has been in the empowerment of women in the communities, who have initiated and led alternative projects (flower production), thus demonstrating the contribution they make to society.

The main impact achieved with the natural resources management component is to have raised awareness and created a culture of managing natural resources appropriately, including the use of forest resources, thanks to the training and information activities carried out by the programme. Another aspect to be highlighted is the impact on municipal public policies, as reflected in the formulation of the municipal forestry strategy in Quiabaya.

## 3.4. Efficiency

Efficiency is understood as the appropriate use of time, materials, and financial and human resources to achieve results and established objectives. It is determined not only by the use of these resources but also by the whole structure that supports the implementation of the Plan in its entirety.

The first aspect that catches the eye is the imbalance between the number of technical staff covering the area (11), and the size of the area and the number of projects they have to deal with. At first sight, this is a constraint hampering the appropriate implementation of such a comprehensive plan. The fact that activities were delegated to the community committees has enabled the technical team to cover a larger area and perform more tasks than they could in the absence of this delegation of responsibilities. Furthermore, their work is extensive in the sense that it has to cover a large geographical area and many people, and this represents a constraint as it prevents them from working on each issue in depth. The area technical team tries to overcome this constraint with their commitment and dedication, but they are nevertheless overstretched.

The delegation of responsibilities to the administrative committees is a factor that has had a positive impact on the efficient use of financial resources. This is directly reflected in the fact that the infrastructure built is of the same quality or better than other similar works of infrastructure in the area but its cost was lower. Although there were delays in some of the infrastructure projects, these were caused by external factors such as the late disbursement of the municipal counterpart contribution.

With the micro-irrigation systems that have been implemented, there has clearly been an optimum use of the technical and financial resources that NMA-B had available for this component, thanks to the leveraging of counterpart contributions from both the municipal government and the communities themselves. Financial efficiency, measured in terms of the cost in dollars per hectare of land now irrigated, has been calculated at US\$1,634 per hectare. This is significantly lower than the equivalent cost in other irrigation system improvement projects in the inter-Andean valleys, which ranges between US\$3,200 and 25,000 per hectare (<a href="https://www.riegobolivia.org/proyectos.html">www.riegobolivia.org/proyectos.html</a>).

# 3.5. Sustainability

Considering the eventual withdrawal of NMA-B from the area, during the different stages of the evaluation emphasis was placed on identifying elements that will enable the projects, services and benefits emerging from the implementation of the Plan to be sustainable, or otherwise configure a scenario that favours sustainability.

The sense of ownership that was evident during the field work and in the interviews with people in the communities is undoubtedly an aspect that will contribute to sustainability.

The links with municipal governments, and the existence of the LDOs that are led by a member of the Municipal Council, are extremely important for the prospect of institutionalisation and guaranteeing the renewal and continuity of the agreements with other support institutions when NMA-B ceases to work in the area. One important element for this to take effect will be the advocacy work that can be done through the communities' Administration Committees and other local community organisations.

The existence of the committees that operate and maintain the infrastructure, mainly the water systems, and the payment of rates for the service which are used mainly to purchase spare parts for repairs, is a factor with the potential to guarantee that the systems will continue to operate when NMA-B ceases to provide support. To ensure that this happens, these committees will need to be consolidated.

It was envisaged that the micro-irrigation systems would be sustainable as a result of the restructuring and strengthening of the community organisations and by training them to manage and maintain these systems (see Annex, Table N° 7). During the field work, it was verified that these organisations were set up while the irrigation systems were being implemented, firstly as project oversight committees and later as irrigation associations. This whole process indicates that these systems promise to be sustainable, thanks to the community organisations' sense of ownership of the technology and the organisational arrangements (the majority of them already had traditional irrigation systems and established rules and regulations for irrigation). Another reason is that they had to make their counterpart contributions, and this creates a real sense of ownership of the systems, based on the principle that people look after something that has implied a cost and maintain it more effectively.

The sustainability of the agriculture projects implemented by the programme depends in the first instance on their economic and technical efficacy, and secondly on the community's ownership of the technological innovations introduced by means of training (see Annex, Table N° 7) and technical assistance. A clear example of this is the flower-growing initiatives that were introduced. After the communities obtained proof that these crops are profitable, they expanded the infrastructure and increased the area of land planted on their own initiative. They have even made a substantial investment in equipment and covered the transaction costs involved in importing Lilum bulbs to expand production. Another similar example of sustainability is that of the producers of certified potato seeds in the highland areas of the municipality of Combaya who were supported by PDIVI 1.

# IV CONCLUSIONS AND RECOMMENDATIONS

# On pertinence and relevance

N°	Conclusions	Recommendations
1	The content of the plan is highly pertinent from the point of view of the local communities. This is because it responds to their needs, many of which were identified beforehand but could not be addressed due to weaknesses in the municipal government and the lack of resources, but also because of governance problems.	
2	It is for these reasons that it is pertinent to help to strengthen the Municipal Development Plan. This was formalised with the signing of agreements that enable resources to be leveraged from the municipal government, under a co-participation and co-financing arrangement. From the municipal government's point of view, it can take advantage of NMA-B's installed capacity in terms of logistics and, above all, a technical team that is highly qualified and experienced in development. These links are reinforced when the person who chairs the LDO is a member of the municipal council.	Before NMA-B ceases to work in the area, it is recommended that the relevant arrangements be made to guarantee the continuity of this way of working in the communities and with other institutions.
3	By strengthening the projects contained in the PDM, the population's expectations are being met, if we take into account that these plans arise from participatory processes in which the communities present their demands through their representatives and get them approved.	

# On efficacy

4	There is a high level of fulfilment of the	The recommendation to overcome this
	activities in all the components, and in some	constraint is to consider all the
	activities implementation exceeded what was	variables when the objectives are
	planned by a high percentage. This is not	being defined and ensure that the
	reflected to the same degree in the	objectives are in line with the
	achievement of the objectives, however,	organisation's real capacities. The
	because the definition of these did not take	additional variables include migration
	into account external aspects that are highly	by families, which is driven by the
		insufficiency of economic resources. In

	influential but outside NMA-B's control.	the case of education, this has resulted in a reduction in the number of students in several schools. In the case of health, people are not accustomed to seek medical care preventively and only do so when they have a problem with their health. The health centres are viewed by local people as "places of illness" rather than "places of health", and this is compounded by the lack of health staff. All these factors have a negative impact on the goal of increasing coverage.
5	In the education component, the objective of improving the conditions in schools was achieved. But it was not possible in every case to increase coverage in terms of a larger number of students enrolled. In some communities the number of students has actually fallen, despite the support provided by NMA-B. This is due to the fact that increased enrolment does not depend solely on improving school infrastructure and equipment. It is also influenced by other aspects related to material conditions, such as the need to earn additional income, and more subjective aspects such as the higher value placed on education in towns. Both of these aspects tend to encourage families to migrate.	A recommendation for future actions is to carry out more detailed assessments to identify trends in people's behaviour and population dynamics, in order to propose more suitable solutions. One possibility that could be considered is to promote a concentration of the student population in communities that are not becoming depopulated due to migration.
6	The installation of safe water systems and latrines has improved the living conditions of people in the communities, in some cases leading to a replication effect in families who were not involved in the projects supported by NMA-B. The collateral benefits of these systems are reflected in the families' improved health, as the sources of infection that existed before the systems were implemented have been eliminated.	In the time that remains, more emphasis should be placed on training the people responsible for operating and maintaining the systems. They should be given tools such as manuals and leaflets to enable them to carry out their work properly. Another aspect to consider is training on ways to purify water that is safe but not drinkable.
7	Achievement of the objective of improving the communities' agricultural production system and the marketing of their produce has been varied and uneven. The programme did not manage to work in depth on the conceptual side or the integrated activities required to address the entire community production system, which should be understood as a complex web of various inter-connected sub-	In-depth conceptual work needs to be done on the systemic approach, which implies acting in an inter-connected and balanced way on all the sub-systems that comprise the production system. It is necessary to work on everything – production, processing and marketing – simultaneously.

systems. This was due to the sheer volume of work, which made it necessary to focus the activities on the intensive agriculture subsystem in the 33 communities in which the work was done (with a high level of efficiency) by a small technical team seeking to achieve an over-ambitious objective with a strategy of extensive work.

8

In the management of natural resources and territory, the programme has achieved an extensive raising of awareness about the natural resources present in the local area. It has also provided training on sustainable environmental management and created a culture of forest resources use and production. These efforts are a start in addressing major unresolved challenges in the region related to the management of essential resources - water, soil and biodiversity – from a watershed management and organisation approach, which are undoubtedly necessary for sustainability and territorial development at the community and regional level. Much of the work was done on pre-Columbian water management and production infrastructure and systems that are still functioning in the communities: channels, wide irrigation slow-forming terraces, storage systems, paths and silos, among others. But this did not include more in-depth work (with technical support) to reflect on the history of this important physical cultural heritage and what it represents as a model of integrated ecosystem management.

The sustainable natural resources management model needs to be studied in depth, recovering and recreating the ancestral knowledge and technology of the water management techniques that are still functioning in many community production systems (slow-forming terraces, irrigation systems, paths, silos, *qhotas* and *qhotañas*).

9

The integral nature of the actions in the economic development and production programme should be reflected in their links and integration with the human development programme (education. health. basic sanitation) and the diaconal development programme. There is no evidence that community production and economic aspects were clearly included in the formal school curriculum or in the health centres, where food security could be linked to preventive healthcare.

In the two years that remain to complete the economic development programme, it is recommended that a participatory evaluation and systematisation process be carried out on the production projects in each community and municipality (LDO) in which work was done on these issues, in order to establish a programme exit baseline.

Once this process is completed, participatory planning events should be organised at the community, municipal and regional level. The purpose of these would be to clearly identify the intensive and extensive actions that need to be taken during the exit phase

and afterwards (specific, regular support or supervision). Indicators defined, both for the should be consolidation of sustainability management and for the development of each component and how it links in with the community and regional economic and production system in its entirety. All this should lead to the formulation of a strategic economic, productive and natural resources management proposal for communities and organisations, with a view to getting this included (possibly in adjusted form) in municipal PDMs and POAs.

It is suggested that the technical team (together with all the institutional and stakeholders) community should analyse and propose actions supplant or replace the technical assistance and support that the NMA-B team has been providing. This would involve defining and prioritising the areas of work, determining the volume of work, proposing a profile for the team members. and visualisina institutional framework in which the work is to be done.

#### On impact

10 The first noticeable impacts are the improvements in the living conditions of the people involved in the projects. This is especially so in the case of the water and micro-irrigation systems, in the former because they have made people's lives easier (they no longer have to invest time and effort in fetching water), and in the latter because agriculture is the main productive activity in the region and the occupation of 85% of the economically active population.

It is necessary to provide further training on the management and operation of the drinking water and irrigation systems.

The surveys reflect people's satisfaction with the organisation's work and the benefits arising from the projects. One aspect to which attention needs to be paid, however, is the target population. The arrangement of obtaining a counterpart contribution from the

Work should be done with the people involved in the projects so that mechanisms based on justice and solidarity can be established to enable those people who – for reasons of financial constraints or health problems

beneficiaries is an aspect that helps to - are currently excluded to access the generate a sense of ownership of the benefits of the projects. The generation projects, but it also leads to the exclusion of of development processes requires people who cannot afford to make that certain capabilities that the most contribution. Thus, the benefits tend to vulnerable groups often lack. accrue to the comparatively better-off groups Therefore, differentiated actions could with more resources, rather than to the most be considered for future initiatives. vulnerable groups. There are also people working on development with the who are ill and unable to make their people who have more resources and carrying out social assistance activities contribution in the form of labour. The strict position towards them is to refuse to allow with the most vulnerable groups. This them to benefit from the projects. As well as would be a way to avoid deepening the being exclusionary, the position in these differences within communities. cases calls into question the solidarity which the organisation seeks to strengthen as a value. 12 This methodological experience of The fact that the community members achieving ownership and effective themselves managed their projects increased empowerment in project management their self-esteem. enhanced their management capacities, and encouraged a should be systematised. sense of responsibility, social oversight, transparency and trust as the basis for the relationship with cooperation organisations. 13 Contact was made with church leaders (the Continue to strenathen these Quakers, the Lutheran Church, the Seventhrelationships ensure that and Day Adventist Church and the Assemblies of information is passed down to the God), and several of them have made a grassroots. commitment to replicate what they learned in the training events with the leaders of local churches. 14 NMA-B reached an agreement with MTC (the A greater impact will be achieved in this Missionary Training Centre) regarding the study of the church's overall mission, work if educational materials by national authors are produced, and even better if interculturalism, gender and the environment. these writers are from the same cultural As well as having experience in training background as the beneficiaries. Also, if evangelical leaders, this institution works the study materials touch on aspects in under an integrated approach similar to that the beneficiaries' own setting, better of the Norwegian Mission Alliance. The results and the desired impact may be denominational leaders and pastors from achieved. the local churches should make contact with MTC directly and thus continue with the training and advisory process. One aspect that should be considered for the sustainability of this process is that the training should also be provided in the Aymara language. The leaders trained should continue studying on their own initiative and adapt the study materials to suit the conditions and needs in their own setting.

# On efficiency

15	The involvement of the administration committees in project management made it possible to fulfil the planned activities with a small team working in scattered communities, on a diversity of thematic issues, and in a rugged geographical terrain. It also enabled optimum use to be made of financial resources.	
16	The strategy of co-participation and co- financing with the municipal government enabled the resources to be increased by leveraging a counterpart contribution to reach a larger number of projects. Furthermore, the municipal government was able to take advantage of the support of a technical team that it could not have contracted with its own funds.	
17	The organisational structure allows the area team to act with quite a high level of autonomy. This is positive in the sense that it speeds up the implementation of activities. However, it was also noticeable that there are no spaces for the team to meet with the other areas to exchange experiences that could mutually enrich their work. Thus, an opportunity to improve the efficiency of the work is being lost.	Establish spaces for the different NMA-B areas to meet and exchange experiences, with the aim of making use of the contributions made by the teams to strengthen methodologies, concepts and operations.
18	The monitoring work and reports focus on whether activities have been carried out. They fail to assess achievement of the Plan's objectives, let alone how these contribute to the organisation's strategic objectives or the goals set out in its Strategic Plan. The Strategic Plan is supposed to be the most important working document – it is the "navigation chart" that should guide the work of all the teams.	Adapt the planning and monitoring tools to make them more focused on the achievement of the strategic objectives of programmes and projects and their contribution to the organisation's strategic objectives. The Area V team leader mentioned that they use other planning and monitoring tools apart from the organisation's official ones.
19	As a result of the organisational assessment carried out by PwC, it was recommended that the posts of Technical Coordinator and Planning Coordinator should be merged. The reason for this was the analogy and similarity of the tasks they performed, which gave rise to a "duplication of roles." This led to the	It is recommended that the planning and monitoring role should be separated from the evaluation role, since the same person cannot act as judge and jury.  It is also necessary to design a monitoring and follow-up system that provides support to the teams, rather

than merely playing an oversight role. It creation of the post of Operations Coordinator, whose main roles should gather and systematise planning, monitoring and evaluation. information and produce reports suited to the needs of the different parts of the In the opinion of the evaluation team, this organisation, so that the information merger led to the tasks being can be used for decision-making. The concentrated in one person, with the reports that were made available to the imminent risk of negatively affecting evaluation team merely describe the efficiency in the organisation's work. The implementation of activities and do not similarity of tasks could have been include analysis or recommendations. resolved by means of a better definition of In short, they are not useful for the roles and responsibilities of each decision-making. post. 20 The dedication and proactive approach of Consider taking up the monitoring tools the area team must be highlighted. This is used by the Area V team in addition to reflected in the fact that they have the organisation's official ones. developed tools to improve the quality of their work. However, they need to be supported to reach a better conceptual understanding of the issue of gender, which is not limited to developing activities for women and working with them separately. Nevertheless, according to the area team leader, work has been done on issues such as equitable relations within the family, capacity development, self-esteem and, fundamentally, mutual respect between men and women. 21 It is important to encourage and build on The systematisation of the experience the initiatives of all the members of the of the women's production initiatives (WEGE) should be published, because team, as well as acknowledging the contribution each of them makes to the it offers a wealth of experience on work and the outputs they produce. gender issues, mainly in flower-growing.

#### On sustainability

	programmes do not share this way of working and cannot imagine transferring the management of resources to local communities.	
23	The existence of the committees is an important element for the sustainability of the projects and their benefits, although it is not sufficient. These committees are functional organisational structures that may disappear when the projects come to an end.	To address this risk, it is recommended that the following actions be taken:  Draw up operation and maintenance plans for the works of infrastructure and projects, clearly identifying responsibilities and resources for the committees to continue operating. These may come from charges that people pay to use the service where relevant; otherwise, an alternative source of revenue should be sought. Another option is that these tasks could be taken on by the rural trade union organisation at the community level, through one of its leadership posts. This would guarantee the continuity of the committees' work as well as strengthening the union structure.

#### V. LESSONS LEARNED

When plans, programmes or projects are being designed and their objectives defined, it is important to undertake an exhaustive analysis of the variables that will influence the achievement of the objectives and whether the organisation has sufficient influencing capacity to be able to change them. It is a question of setting realistic objectives in accordance with the organisation's possibilities. To do otherwise implies that the objectives will fail to be achieved right from the start. This may lead to frustration and a lack of confidence in the organisation and its technical teams.

Making the community members themselves responsible for project implementation is an effective and efficient way to achieve empowerment, develop management capacities and create a relationship of trust between the support organisation and the local community. It also helps to break the prejudice that still persists in some institutions, who believe that community members lack the capacity to manage resources properly. The experience developed in the PDIVI has proven that this way of working increases efficiency, activates the community's own social oversight mechanisms, provides practical training on management and administration issues, and strengthens the sense of belonging and ownership which is fundamental for the sustainability of projects. In short, this way of working achieves a lot more than holding numerous workshops on merely theoretical topics which tend to bore participants rather than motivating them.

Working in different geographical, social and cultural settings requires putting together different teams. In NMA-B's case, the area teams are relatively autonomous, but their work is aligned with a single strategic proposal set out in the organisation's strategic plan, which precisely defines its vision, mission, identity and raison d'être. In this context, it is extremely important to have spaces for reflection, the sharing of experiences and feedback between the technical teams in the different areas. This will enable methodologies, tools and approaches to be enriched, thus strengthening the organisation as a whole. This should be part of the organisation's policies rather than resulting from the interest or initiative of one or another staff member, and the responsibility for creating these spaces lies with central office.

As well as being conceptualised and described in detail in institutional documents, the transition from extensive to intensive work under an integrated approach should be reflected in the multi-disciplinary composition of the teams, with technical staff who have the specialist knowledge to be able to work competently on the issues that the integrated approach requires. In the Sorata team there is a noticeable lack of specialists on the economic and social side. The meagre results achieved in the area of micro-enterprises are no coincidence.

To facilitate evaluation processes and ensure that they benefit the organisation, it is necessary to have systematised baseline information that will allow the results achieved by a project to be compared with the situation before it started. This implies working systematically throughout the project's implementation period, not just at the times when external evaluations are scheduled. Regular internal evaluations should be carried out within the organisation and their results should be considered as important inputs for external

evaluations. Furthermore, involving both top management and operational staff ensures that the range of views from within the organisation can be captured. This is important to guide evaluations, generate ownership and validate the results. It is a question of producing an output with the organisation's own stamp rather than one that merely reflects the view from outside.