

**Title: "InfoAndina: Participatory communication networks for sustainable development of rural Andes"**

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**Keywords:** Information networks; sustainable development; E-Conferences;  
Strategic alliances; information dissemination; low-band communication networks

**ABSTRACT**

InfoAndina is the information arm for the Consortium for Sustainable Development of the Andean Ecoregion (CONDESAN – [www.condesan.org](http://www.condesan.org) ), created in 1995 to facilitate communications among stakeholders working in rural remote locations. InfoAndina manages the Latin American node of the Mountain Forum since 1997, a global network promoting awareness about fragility of mountain ecosystems.

InfoAndina services are based in low-cost participatory communication methodologies reaching a wider audience, including bi-lingual e-conferences moderated by experts in trans-andean topics: natural resource management, biodiversity conservation policies and production systems. [http://www.condesan.org/infoandina/foros\\_electronicos.htm](http://www.condesan.org/infoandina/foros_electronicos.htm)

InfoAndina's promotes strategic alliances among information networks (REDISAL – [www.redisal.net](http://www.redisal.net) ). It is developing innovative projects to facilitate marketing opportunities for Andean producers.

**I. BACKGROUND**

The Andean range extends over 7,250 kilometers from North to South , occupying an area of 2 million square kilometers in Venezuela, Colombia, Ecuador, Peru, Bolivia, Argentina and Chile.

The Andes is a region of largest environmental and geomorphologic diversity in the world. Different climatic zones and vegetation between the line of Equator and the Antarctic, it contains the most extreme ranges of landscapes, climates and vegetal varieties in the world. However, this geomorphological complexity is a limiting factor for development.

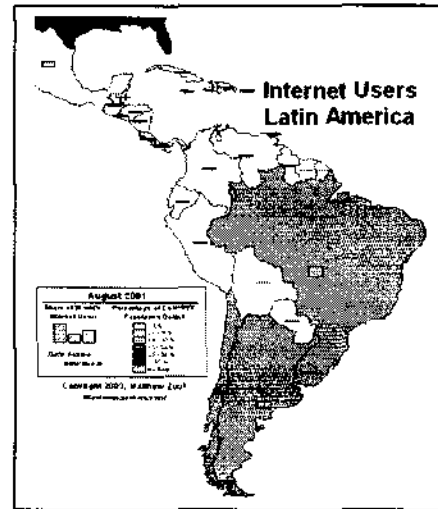
The scarcity of water in the Altiplano is one of the largest challenges for survival of peasant communities who are traditionally isolated from their central governments. This harsh environment represents a challenge for developing sustainable production systems in the Altiplano. In some cases, support from the International Cooperation has made possible to overcome these limitations.



For over 20,000 years, Andean people have survived in harmony with the environment. The indigenous knowledge for living together with the Andes is lost gradually, their ancient technologies developed to manage water and cultivate their lands such as the “waru warus” around the Titicaca Lake over floodable planes, and the agricultural terraces or “andenes” take advantage of steep hillsides. These technologies are no longer used and the populations are marginalized.

The lack of adequate natural resources management policies, isolation and harsh environmental conditions has originated high poverty level in the Altiplano, reaching to 45% of total poverty index in Puno (Peru).

The lack of adequate communication and telecommunication infrastructure in rural locations, and the lack of computer literacy of rural populations represent a challenge for international networks to promote strategic alliances among projects and initiatives working for sustainable development in the Altiplano. Internet connectivity is less than 2% of the total population in the central Andean Countries: Peru, Ecuador, and Bolivia.<sup>[3]</sup>



## II. STRATEGIC ALLIANCES AMONG INFORMATION NETWORKS

The Consortium for Sustainable Development of the Andean Region (CONDESAN), was created in 1993 to alleviate poverty through equitable practices for conservation of natural resources in the Andes. InfoAndina is the information arm for CONDESAN, facilitating information exchange of stakeholders in the Andean region since 1995.

Since 1997, InfoAndina is responsible for the operations of the Latin American node of the Mountain Forum, a global network created to facilitate global information exchange on concerns regarding the fragility of mountain ecosystems ([www.mtnforum.org](http://www.mtnforum.org)). The Mountain Forum is a global network promoting strategic alliances and inter-regional initiatives. During 2002, the International Year of the Mountains, InfoAndina has supported the Bishkek Global Mountain Summit (BGMS) E-Consultations in close cooperation with Mountain Forum nodes from Europe, North America, Africa and Asia. InfoAndina led a bi-lingual global e-conference on “Water, Dessertification and Climate Changes”. (<http://www.mtnforum.org/bgms/papere1.htm>)

Since December 2000, InfoAndina has promoted strategic alliances among the main regional information networks in the Andean region working for sustainable development: REDISAL, See [2]: [www.redisal.net](http://www.redisal.net)). This alliance is formed by 5 regional networks: REDECO (Colombia), REDCAPA (Brasil), REDESMA (Bolivia), REDEPAPA (Colombia), and InfoAndina (Peru). REDISAL reaches over 20,000 users in Latin America, and facilitates efficient dissemination of information avoiding duplication of information, cross-posting relevant announcements regarding e-conferences and distance learning courses on sustainable development issues.

## III. PARTICIPATORY E-CONFERENCING METHODOLOGY

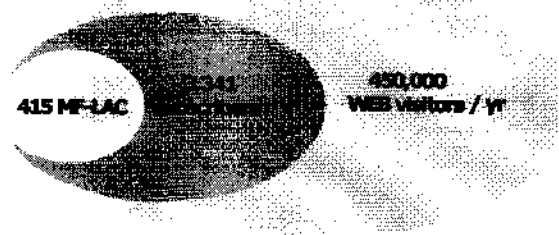
Since 1997, InfoAndina has developed low-cost communication tools based on moderated e-conferences, e-newsletters, and e-discussion groups (See [1]). This participatory methodology is based on moderated discussion lists covering wide number of users at remote Andean rural locations, where the Internet bandwidth is very limited. InfoAndina provides hands-on training resources for moderators (See [4], and organizes periodic face-to-face traveling workshops at secondary Andean cities. (<http://www.condesan.org/infoandina/jtinerante/talleres2.htm>). These workshops are hands-on training sessions to facilitate participation in the virtual activities (E-Conferences), and promote the use of bibliographic resources available at CONDESAN and the Mountain Forum web sites, facilitating integration in the information society of members from these rural Andean communities.

This participatory e-conferencing methodology is being co-sponsored by Andean development organizations, such as SDC, the main sponsor of the Mountain Forum network ([www.mtnforum.org](http://www.mtnforum.org)), SANREM-Andes ([www.sanrem.org](http://www.sanrem.org)), ASOCAM ([www.asocam.org](http://www.asocam.org)) and Intercooperation in Bolivia.

The methodology developed by InfoAndina is being adopted and applied recently by national organizations such as the Ministry of Agriculture, to promote e-discussions on national concerns: agroexportation challenges (see: PROAPA-GTZ E-Conference), and local development (dglocal).

#### IV. INFOANDINA MEMBERSHIP & E-CONFERENCES

InfoAndina audience is three-fold: 415 formally registered members in the Mountain Forum membership database, a total of 3,341 subscribers to its e-discussion lists and e-conferences, and an average of 450,000 CONDESAN WEB visitors per year.



These visitors are mainly from the five Andean countries, but include visitors from Europe, US, and other continents.

##### A. InfoAndina Andean membership

**Chart 2. InfoAndina Andean Users**

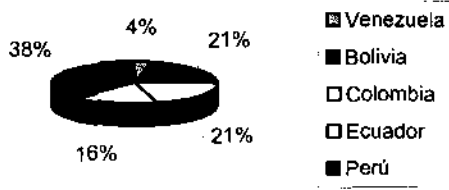


Chart 2. presents the distribution of InfoAndina Andean membership originating from the Central Andes: Peru, Ecuador and Bolivia.

InfoAndina has played a key role facilitating information exchange for CONDESAN regional projects for sustainable development of natural resources, such as the Paramos Project, funded recently by the GEF initiative of the World Bank.

##### B. The Paramos Group

The Paramos regional E-Discussion list was created by InfoAndina in Bellanet server to support the organization of two E-conferences on Paramos conservation (1997 and 2000). This list has grown and presently has 875 subscribers from all the world. Both E-Conferences were moderated by experts from Ecuador and Peru. Dr. Robert Hofstede, Ecociencias, Ecuador and Dr. Jorge Recharte, TMI Peru. Printed proceedings of the Paramos E-Conference are available through CONDESAN Virtual Bookstore. ([http://www.condesan.org/publicaciones/pub\\_rnnn.htm](http://www.condesan.org/publicaciones/pub_rnnn.htm))

At national level, the Paramos-Peru national discussion list is also supported by InfoAndina in TOPICA server since 2002. The Paramos-Peru list has now 30 subscribers, and was created to facilitate specialized dialogue and exchange of announcements and newsletters.

##### C. InfoAndina E-Conferences

Since 1997, InfoAndina has organized 16 e-conferences in ecorregional issues moderated by experts from different countries. The main topics covered were: biodiversity conservation, sustainable development policies, and paramos conservation.

Chart 2 below summarizes the e-conferences organized since 1997, and the number of registered participants.

<b>Chart 2. InfoAndina E-Conferences</b> <a href="http://www.condesan.org/infoandina/foros_electronicos.htm">http://www.condesan.org/infoandina/foros_electronicos.htm</a>	
<b>Natural Resource Management</b>	<b>Participants</b>
2003: "Integrated Watershed Management in the Andes"	350
2002: "Water, natural resources, desertification and climatic change"	1,000
2000: "The Paramo as water resource: Myths and Realities"	350
1998: "Biosphere Reserve Management in the Andes"	300
<b>Sustainable Development Policies</b>	
2002: "Rural municipalities & local management in the Andes"	400
2000: "Local governments & Sustainable Development in the Andes"	350
<b>Biodiversity Conservation</b>	
2001: "InSitu 2001: InSitu biodiversity conservation"	350
1999: "InSitu 99: InSitu biodiversity conservation"	300
1997: "InSitu 97: InSitu biodiversity conservation"	250
1995: "InSitu 95: InSitu biodiversity conservation"	200
<b>Production Systems</b>	
1999: "Challenges of Rural Agroindustries in the Andes"	350
1998: "Potato Research challenges in Latin America"	200

## V. RESULTS

The low-cost participatory methodology applied by InfoAndina for e-conferences, combined with a bi-lingual platform in English and Spanish, resulted in a significant increase in the number of participants registered in these E-Conferences since 1997. On-line WEB archives and printed proceedings are also edited for InfoAndina e-conferences. These electronic archives store case studies and comments, along with the list of participants organized by country.

The combination of specialized knowledge about natural resource management generated by a wide diversity of stakeholders from remote rural locations under the strong participatory electronic platform provided by InfoAndina is the key of the success for these E-Conferences.

These forums are moderated by specialists and co-sponsored by organizations working for international cooperation for development in the Andes. During the International Year of the Mountains (IYM2002), InfoAndina raised a total of 20,000 USD from UNEP, SANREM-Andes and the Ministry of Social Welfare in Ecuador, co-sponsoring InfoAndina E-Conferences. In 2003, in the frame of the International Year of Freshwater (IYFW2003), InfoAndina is collaborating with Bolivian partners to organize a preparatory E-Conference before the face-to-face event organized in October 2003: "The Americas Water Forum" (<http://www.foroaguamerica2003.org/principal.htm>).

The combination of electronic and face-to-face conferences are a strong tool for ensuring open dialogue on crucial issues regarding adequate management of natural resources that will define future regional policies for sustainable development in the Andes.

## V. CONCLUSSIONS AND RECOMMENDATIONS

Connectivity is insufficient in the Andes, however the new information technologies and low-cost communication methodologies combined with strategic alliances among regional networks represent powerful tools for empowering rural communities and development organizations to bridge the digital divide.

Regional information networks provide virtual dialogue platforms for stakeholders to discuss policies for adequate management of natural resources, and these are increasingly used at national and regional level in the Andes with the support of the international cooperation. However, it is necessary to combine these virtual platforms with face-to-face training workshops to facilitate the participation of stakeholders from rural Andean locations in electronic conferences and the use of databases available in the Internet for decision support.

The isolation of Andean communities will be reduced with their progressive inclusion in the information society. Their digital inclusion is being facilitated by national and international networking efforts supporting adequate policy making for natural resources management.

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