

RCE Award 2014 applicant on Traditional Knowledge Category

BIODIVERSITY AND INTERCULTURAL DIALOG OF KNOWLEDGE SYSTEMS: AN EDUCATIONAL EXPERIENCE IN THE JUNGLE OF PERU

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REGIONAL CENTRE OF EXPERTISE ON EDUCATION FOR SUSTAINABLE DEVELOPMENT
RCE LIMA - CALLAO
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1. The beginning and the context of the idea

In 2012, the Regional Centre of Excellence in Education for Sustainable Development RCE Callao Lima and the Peruvian Institute of thought Edgar Morin Complex began in San Martin region of Peru the Diploma in Intercultural Knowledge and Biodiversity as a semi-attendance-program oriented to the transdisciplinary dialogue of knowledge relating to biological and cultural diversity through lectures, debates, discussions, readings, group work and action research exercise. It took place under the Sustainable Development Program Rural (PDRS) GIZ German cooperation in Peru, and in accordance with the Regional Government of San Martin, various actions to advance conservation and sustainability issues were held with local populations urban and rural, technical and native communities in that region of the Peruvian jungle. In the process, it became clear the need to harmonize concepts, guidelines and practices from ancient wisdom and academic skills of those responsible for the various activities, which often could perceive the isolation of each of these knowledge against the other, which prevented to achieve a good articulation of experiences. The technicians often tended to underestimate or ignore the ancestral knowledge, prioritizing learning in university classrooms, which became an obstacle to understanding the local and cultural realities, and did not allow integrating knowledge to important achievements in progress towards sustainable development. This fact, very often in various regions of the world where people live together from diverse backgrounds and cultural experiences, results in the absence of a true dialogue of knowledge and continuing supremacy of the so-called academic knowledge, considered "scientific", which may not recognize the scientific knowledge of the community. It was thought of carrying out an innovative experience that would explore options of mutual recognition, toward a vision of greater integration and assessment.

1.1. A starting point: The need of a dialog of knowledge systems.



In a transdisciplinary dialogue of knowledge it comes to promoting actions that lead to a shared understanding. This can be done across words, understanding, listening and speaking. But above all, to fully practicing listening and sharing, open and nonjudgmental, ideas, concepts and practices. There is no doubt that the basic requirements for dialogue becomes real way. The first is the recognition of the Other, as a person who can be learned. Key to this is from consistency. I have the intention to connect, to approach, with a ready understanding, contrary to adherence, which would stick to a predetermined address, a bedrock certainties. This requires knowledge dialogue developed through a broad and discursive practice, which respect and horizontality, and to consider the existence of wisdom in some and in others, both those who hold so-called ancestral knowledge and those with scholars from different disciplines of knowledge. In that sense, the dialogue of knowledge has a direct link with multiculturalism, *i.e.* the ability to understand and respect different cultures, from the identity and a responsive and comprehensive view of the Other, to the extent each culture and each individual represents a set of experiences, knowledge and practices that contribute to the wealth of knowledge possessed by mankind. Therefore, a dialogue of knowledge can not have a center or an evaluative benchmark high to low, in the sense of raising some knowledge over others. That is, should not start cataloging what is "science" and what is not. Since the science concept - from the Latin *scientia*, knowledge - going beyond the knowledge of academics called to transcend multiple knowledge originating from different stages, actions and thoughts of human history and the various civilizational moments. The paper "Ecosystem Approach" prepared by the Secretariat of the Convention on Biological Diversity, is a valuable contribution in this regard, to introduce the concept of "knowledge systems". In one of the guidelines for the implementation of the Convention it is stated that: "appropriate to document and provide mechanisms information from all disciplines (natural and social including science) and all systems relevant to knowledge should be developed, in the broadest terms, in particular those based on local and traditional practices. " Therefore, the knowledge dialogue is an encounter between different knowledge systems. This implies that the dialogue is essential to note that each of the knowledge has emerged and it is part of a system, a methodology, a process that has originated and developed in the context of different cultures, so it deserves due attention and recognition. The methods to knowledge then appear as multiple and multiple are the knowledge and systems that house them. Although the term dialogue of knowledge is increasingly used in various media interested in multiculturalism, the fact is that, in most cases, it is an approach of a general nature, an assumption, an intention, but not always translated into concrete practice.

1.3. El Peru and the idea in practice: A Formative Proposal in San Martín Region

Peru has a great biological and cultural diversity. The Peruvian Amazon accounts for 60% of Peruvian territory. Of this total, San Martín represents only 6.6% of the Amazon territory, yet it houses approximately 800,000 people, ie 30% of the Amazonian population, making the region the most densely populated of Amazon. This reality, caused largely by the Andean immigration, press on nature to the extent that some regions such as the Alto Mayo are among the most degraded of the country. The Amazonian Peru has 42 ethnic groups with a population of 340,000 inhabitants; out of these, three are in San Martín region: Awajún or Aguaruna, the Quechua-Lamas, and Chayahuitas. The second and third races in demographic importance in the Amazon after the Ashaninka are Awajún and Quechua-Lamas. These people have a deep knowledge of their territory and have kept and preserved until now not only knowledge but values and practices of care for nature.

In San Martín region a set of experiences on the conservation of biodiversity has developed and it is developing. Some of the practices promoted have proved to be environmentally sustainable, but it is clear that, for lack of systematization and diffusion, considerable expertise has not been disseminated in informational materials and practical examples that can be useful for training in the education system and institutions for development in the region.

In the efforts that the Regional Government of San Martín and various public and private organizations have been doing in recent times, aimed at the conservation of biodiversity and sustainable environmental management, the need to articulate the academic knowledge and technical officials in diverse processes, with the knowledge and practices of indigenous communities in the region was evident.

It thus required a knowledge dialogue in which both the former might know better, valuing each other's experiences and their contribution to the sustainability of the region. In this context, it was pointed out the possibility of a different learning experience, which could offer students the opportunity to exchange knowledge, broaden their perspectives and enhance their work with new perspectives and approaches, supported by raised and intercultural mutual respect.

So the idea of designing and implementing a graduate course Biodiversity and Intercultural Knowledge based on experience and the existing documentation, which could contribute to the dialogue of knowledge and encourage the compilation and dissemination of documented practices that could be applied and valued in the region. From this perspective, Sustainable Rural Development Program GIZ together with the Regional Government of San Martín, Universidad Ricardo Palma, the RCE Callao Lima and the Peruvian Institute of Complex Thinking Edgar Morin (IPCEM) initiated an experience focused on providing a training space, which seeks to exercise a real dialogue between academic knowledge and ancestral wisdom, in a broad and participatory manner.

The proposal also came from the recognition of the great biological and cultural diversity that houses the Andean Amazon region, and the important role that regional institutions and local communities have in preservation and development. This diversity highlights the ancient cultural tradition of their upbringing embodied in indigenous and local communities, and it is the main subject of the Peruvian state and the regional governments to promote the interests enshrined in the Convention on Biological Diversity (CBD), signed by most countries of the planet at the Earth Summit '92, in the General Law of Education of Peru (28044) in the various policies and programs for conservation of biological diversity.

1.4. Rationale of the program

The Semipresential Diploma in Intercultural Knowledge and Biodiversity, has been formulated in conjunction with a group of leading scholars and connoisseurs of San Martín Region (Peru), who are currently part of the Academic Council of the Diploma. The program is in the formative research processes and the Peruvian Institute of Complex Thought Edgar Morin (IPCEM) Ricardo Palma University. In a recent study by the United Nations Program for the Environment - UNEP states: "Although there has been a tendency among modern societies ... to consider the local ecological knowledge as 'primitive' and obsolete, it is increasingly clear it has a tremendous relevance today ... Given the recognition that local ecological knowledge is crucial to the purposes of biodiversity conservation in particular and environmental sustainability in general, you need to find a central place in any effort to formulate policies. For this to happen it is essential that the current unilateral relationship between modern scientific knowledge and local ecological knowledge, in which the first move or co-opts the second, is

replaced by one characterized by mutual respect and equivalence ... There is not probably a university in the world in which teaching and research are, completely or predominantly based on the integrated knowledge. "(pp. 91-93)

The Diploma in Intercultural Knowledge and Biodiversity provides a space for reflection, debate and academic-based training, in its first version, the experience and the existing documentation of San Martin region to stimulate the systematization and dissemination of ancestral knowledge and practices in the dialogue of knowledge for the benefit of the whole Andean Amazon region. The Diploma aims to be a complementary initiative to various academic and technical programs related to natural resources education, management, and environmental education and sustainable development and aims to provide conceptual and practical training of technical answers, officials and teachers and indigenous leaders and members of civil society, which require training modalities that equip them with useful tools for recovering, in some cases, and strengthening in others, culture regeneration of biodiversity.



2. Strategic Vision, objectives and target group

Philosophical approach

The course highlighted the contextual conditions that justify the initiative and how the thought of complexity that grows IPCEM addresses intercultural training. It emphasized the nonlinear epistemological framework, transdisciplinary and complex to be observed at the diploma, which involves learning from a different perspective, a different strategy of inquiry ancestral knowledge, popular knowledge, western scientific and technological knowledge promoting a transdisciplinary dialogue of knowledge that vindicates the dialogue between cultures, the practice of good living and a self-organizing and emergent education from life to life.

Pedagogical approach

The Diploma in Biodiversity and Intercultural Knowledge rests on two main pillars: 1) The transdisciplinary dialogue of knowledge understood as "the mutually reinforcing relationship between people and cultures, brought together by a shared destiny." it is about people and cultures linked by sustainable development interventions in the Diploma, and 2) the treatment of the themes of the working areas of the participants sharing their experiences.

It is assumed that mutual respect is the basic condition of the knowledge dialogue. Expressed in the recognition that: 1) of the equivalence of cultures people bring to the dialogue; 2) the legitimacy of each of the participants; 3) the knowledge that each participant has for effective intervention is valuable but insufficient and requires the contribution of all; 4) that the actors bring to the common share their particular wealth of experience, knowledge and skills and ways of thinking and acting, which, regardless of intentions, can operate as drivers or as brakes for the cooperative action.

The challenge of the Diploma is to recognize and take over the culture we bring to hand, meaning by culture the vital implicit assumptions we have acquired as members of a community. The transdisciplinary dialogue of knowledge allows us to explain their impact on the way we feel, think and act, intended to be facilitated by an environment of mutual recognition and support to enable us for establishing competence and efficiency a learning

community based on cooperative relationships. This learning community embodies the platform or common understanding which is the expected result of the Diploma.

General Objective of the Diploma

Equip community leaders, teachers, technicians and professionals from public and private institutions, regional governments and local Amazonian Andean countries with an intercultural vision which understands and values the academic and ancestral knowledge related to regeneration and the sustainable use of biodiversity.

The target groups

According to the anticipated objectives, the target groups were community leaders, teachers, and technical professionals from public and private institutions, regional and local governments, from Amazonian Andean countries. In a first version it was considered to count mainly on people from San Martín region, with the expectation of eventually incorporate other potential participants from other regions and countries.

This Diploma Course, first version, had 22 indigenous students, all of them in full scholarship. The Academic Council was composed of 10 members. The teaching staff was composed of 20 people both indigenous Andean Amazonian wise men and westernized academicians. We visited 4 Quechua Lamas communities. We talked and share experiences with 4 indigenous leaders and their families. We delivered free conferences at Instituto Pedagógico San Martín (an institution in charge of training local teachers) with a public comprised of about 300 students (future teachers) and 50 teachers from the communities' schools. We also worked with 30 indigenous women biodiversity nourishes. During the closing ceremony and activities about 150 members of the community attended.

Graduate Profile

Upon the completion of the diploma the graduate must:

- a) Internalized biodiversity issues at the regional level (for the specific case of San Martín Region in this version of the program) and in the global context, and become familiar with the different perspectives that exist to address this.
- b) Developed listening skills and motion understanding and articulating the views and positions of the various development actors.
- c) Acquired competence for conversation and intercultural exchange.
- d) Developed the capacity to elaborate intercultural approaches (complex) to matters within its region of origin.
- e) Prepared a study applied to their work, on the main subjects of the Diploma.

Pedagogical strategy of the Diploma in Intercultural Knowledge and Biodiversity

-Face and distance modules

The Diploma in Biodiversity and Intercultural Knowledge is grounded in the experience of classroom modules, focused on discussions with scientists and field visits to communities with expertise in cultural affirmation. It consists of three classroom phases: an initial ten (10) days; another intermediate of five (5) days and a final five (5) days, supplemented by two intermediate phases at a distance. The tangible result of the Diploma academic paper was prepared by each participant with a personal contribution, due to his experience and

systematic reflection throughout the program. The taught modules aimed at training the participants of a learning community to facilitate the continuity of training and sharing experience to implement what they learned. Distance modules provided space for self-training with support from teacher / tutor team. Learning technology will be used at a distance and tried adapting it to the specific situation of each participant. The modules are:

Module I: Biodiversity and Management of the Knowledge Dialogue:

This module introduces the Diploma establishing conceptual foundations for addressing the biological and cultural diversity and the transdisciplinary knowledge dialog, as well as its operating base through training in the domain of information technology and communication. It includes a visit to local communities to practice traditional knowledge.

Module II: Ecology and Ecologies

Module II complements Ecology addressing the issue started in the first module as a conceptual framework for the knowledge dialogue. It is about the whole ecosystem and each of its stages: farm, forest and water, from the techno-scientific vision and from local knowledge in an integrated manner.

Module III: Intercultural Approaches gender, health and food sovereignty

The use of the category gender in policies and practices of food and health in the scientific approach as well as in the vision of indigenous communities is analyzed.

Module IV: Biodiversity and Climate Change

The central theme of the module is the local response oriented to the regeneration of biodiversity in the context of climate change.

Module V: Sustainable Development and bio commerce

It is aimed at improving the living conditions of communities and promote a dialogue of knowledge and worldviews respecting their rights to avoid social conflicts. Search contextualized development and relevant of the communities.

Module VI: Indigenous peoples, biodiversity conservation and environmental legislation

The central theme of the module is the view from indigenous peoples and local communities in the regeneration of biodiversity in the global context.

Module VII: Research Seminar

Prepare students for the presentation of their case work.

Curricular program

Module	Themes	Modality
Module I. Agro-biodiversity and Management of the Dialogue among Different Types of Knowledge	Introduction to the Diploma. Management of the Dialogue among Different Types of Knowledge	Requires attendance
	Agro-festive Calendar	Requires attendance
	Indigenous and modern worldviews of the cultural and biological diversity	Requires attendance
	Ecology of the Small Farm(chakra) and Intercultural Learning	Field trip

Module	Themes	Modality
5 Nov to 11 Nov 2012	Research seminar	Requires attendance
Module II Forest Ecology Water Ecology 12 Nov 2012 a 16 Jan 2013	Introduction to Module II	Requires attendance
	Forest Ecology	Distance
	Water Ecology	Distance
Module III. Genre, Food Sovereignty, Health and Environmental Education 21 to 25 Jan 2013	Genre and nurturing of biodiversity	Requires attendance
	Food Sovereignty, indigenous food and biodiversity	Requires attendance
	Health	Requires attendance
	Environmental Education	Requires attendance
	Field Trip	Field Trip
Module IV. Biodiversity and Climate Change 28 Jan to 28 Feb 2013	Introduction to Module IV	Requires attendance
	Biodiversity in San Martin, strategies de conservation	Distance
	Climate and Climate Change	Distance
	Information System	Distance
Module V. Sustainable Development and bio- commerce 1 to 20 March 2013	Introduction to Module V	Requires attendance
	Sustainable Development, Management of Socio-environmental Conflicts	Distance
	Biodiversity and commerce	Distance
Module VI. Indigenous Peoples, environmental legislation and biodiversity conservation 21 March to 21 April 2013	Introduction to Module VI	Requires attendance
	Indigenous Peoples, Rights and Conservation	Distance
	National and Regional environmental legislation	Distance
Module VII. Submission of papers 22 to 26 April 2013	Research seminar. Submission of papers	Requires attendance
	Themes to deepen	Requires attendance

Management of the Diploma

The management was in charge of IPCEM which formed a team committed to ensure fluidity and relevance of the relationship between modules and between the presence phases and distance by closely accompanying the teaching staff. Your responsibility is focused on

advancing the space and atmosphere propitious for dialogue of knowledge, transdisciplinary research and complex thought.

The implementation of the Diploma was in charge of a manager RCE Lima Callao and accredited by the Peruvian Institute of Complex Thought Edgar Morin (IPCEM) Ricardo Palma University, university institution issuing the guarantee academic program teaching team. It also had the support of the Academic Council, established under the University with input from regional specialists for ongoing monitoring and validation. IPCEM brings experience as a promoter of dialogue initiatives transdisciplinary knowledge in coordinating the Regional Center of Expertise on Education for Sustainable Development (RCE) Lima Callao certified by the United Nations University (UNU) and organizer software international training and transdisciplinary in complex thinking.

Grading system in the Diploma

The evaluation of the participants was permanent. In the presence phases it consisted of evaluating each item by reading the summaries and the subsequent development of each topic assessment. In the distance phases reading abstracts and participation in forums and discussions would be graded. All these ratings shall together have a weight equivalent to the rating of the monographic paper.

This process was also accompanied by consultation of various regional, national and international bodies, until a working formulation for each of the modules, where the final expression had significant contributions of the various bodies.

3. The difficulties found

The limitations of any starting experience range from economic difficulties, to institutional commitments. Generally there is little money for these efforts and what you get demand much effort. At times there were problems with institutional commitments, particularly in the region. The Diploma would not have been possible without the cooperation of institutions working in the region, including several non-governmental organizations and the German cooperation can summarize the most relevant:

- Economic constraints
- Little interest from non-indigenous students in ancestral knowledge
- Low use of computer technology by students and teachers.
- The few resources that have prevented a greater number of full scholarships.
- The gap orality / textuality.
- Disinterest of technicians in the academic process by epistemic questions.
- The dominant language from teachers hardly permeated indigenous participants.

Major Accomplishments.

A complex, transdisciplinary, phenomenological implemented inquiry achieved:

- It is a pionner program practically on dailogue of knowledge systems oriented to achieve public policies in the Region as well National.

- A level of local / global articulation of social agents of indigenous communities, local organizations, national organizations and international cooperation which contributes to empowerment and allows a great job sharing Network
- Building a local / global epistemic community
- The creation of spaces for transdisciplinary knowledge dialogue
- The emergence of areas of joint cooperation of friendship, love and trust with members of the party shown on the final closing of the graduate community. The work with the school community was supported with materials. The loving relationship and work with Warmicunas, women farmers, weavers training courses at Teachers College Tarapoto where teachers are formed.
- Fund scholarships for students with the support of the German Cooperation GIZ and PNUMA, participants are very poor and came from far away; we had to provide housing, food and education. Without this support it is impossible to engage members of indigenous communities
- The lines of communication and shared work between local organizations
- Respect and recognition in parity Amazonian Andean knowledge Exceeded painstakingly the orality / textuality gap in our participants which was openly manifested in the topic of the essay that the Diploma required.
- Indigenous young participants from the region in the use of ICTs, and the virtual classroom were inserted. They appreciated this excellent opportunity to communicate locally, nationally and globally.
- Complete 8 monographs complete and the outline of 22 projects proposed to be worked with the youth in their communities for collective construction of knowledge and foster recovery of biodiversity in their communities.
- The inclusion of indigenous graduate students in the use of information and communication technologies and assessment of relevant technological scientific knowledge to improve their living conditions. It was one of the hardest tasks required to extend the 30% expected time
- The inclusion of professionals, technicians in the valuation of traditional knowledge
 - Participation with parity of knowledge indigenous teachers in the II RCEs of the Americas Meeting held in February 2013 in Lima.
- Recognition of the Universidad Ricardo Palma of the Andean scholars as teachers of the diploma and the diploma granting to the indigenous leaders. This was the first case in Peru and opens a possibility to build another validation of existing knowledge systems in the Amazonian Andean culture.
- Scaling of experience has allowed the RCE Lima Callao to coordinate the Traditional Knowledge Project on Nutrition in Biocultural Diversity and Indigenous Communities. The program aims at developing an innovative model for the care and valuation of biological diversity and culture, supported education improvement in productivity. It brings together several areas of development - appropriate knowledge , nutrition, preservation of bio diversity and culture and livelihood practices - That are often treated separately and, therefore, do not reach the required potential. This model is based on a non-linear, complex and transdisciplinary epistemological approach, which IMPLIES to learn with another glance and another strategy of inquiry in the ancient knowledge, popular knowledge, knowledge of Techno science, promoting the livelihood practices of

Amazonian Andean Communities. This project is associated with RCE Bogota and RCE Guatemala. It is one of the projects considered in the Third Meeting of RCEs from the Americas in Mexico July 2014.

4. Recommendations for the future

All experience requires a maturation time to be sustainable. Firm roots in the institutional life in the indigenous people's organizations, and civil society are needed. To do this it requires a thoughtful reading of the region where the experience is developed and of the environmental challenges, of its insertion into the academic and national environmental debates avatars develops, the international anchor must be seen. What can be and should be done, should be encouraged.

And this can and should have multiple perspectives, all of them valid. However it is required that whatever the initiative is, continuity arrangements and institutional contacts should be waited for. A Diploma of this type must be a regional exercise of reflection and debate. For a new version it would be necessary to review the contents and objectives of the diploma according to the needs of skills and knowledge of the audience it is intended.

At present the publication of this experience is being edited. Our thanks to (PDRS-GIZ), PENUMA, UNU-IAS for their commitment to the development and implementation of the Diploma Project, the Regional Academic Council, the entire team of teachers and local institutions and the University Ricardo Palma, the wise Andean and Amazonian, the Quechua-lamas for their solidarity and the hospitality; we were welcomed and sheltered with their unfathomable wisdom and love.



Ceremonia de Clausura del Diplomado.



Relaciones con la Escuela de la Comunidad, Región San Martín.