

Schools in the rainforest

Innovative indigenous education in the Amazon

Rainforest Foundation Norway 2009

Eva Marion Johannessen





Class room in the Ngowêrê school in Xingu. The young pupils in the front row study numbers while the older in the back study vocabulary related to fishing. Photo: Camila Gauditano / ISA

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Front cover photo: *Studying traditional indigenous handicraft in a class of ethno-mathematics in the Tuyuka school in Rio Negro. Photo: Beto Ricardo / ISA*

Rainforest Foundation Norway and education projects: Why?

Reading, writing and having access to formal education are almost universally seen as unquestionably good. Illiteracy and not having access to schools are equated with lack of development. Schools and literacy are a sign of progress.

Rainforest Foundation Norway does not share this view. Schools and educational systems can also serve as extremely efficient mechanisms of oppression and cultural disintegration. Most of the schools that reach out to traditional communities in the depths of the rainforest actually have this function, to a greater or lesser extent. They become instruments for making the orally transmitted local knowledge irrelevant, for creating the fiction that what is put in writing is more important than what is not. Badly prepared teachers from the majority culture may not have so much success in teaching their ethnic minority pupils mathematics and writing, but they often succeed in shattering their self-esteem. When a youngster who is able to stutter his way through a written text considers himself more important than a previously respected elder, then that community is in real danger of succumbing to the pressures from the surrounding national society.

Skills, knowledge and mastery of the world do not depend on formal schooling. To be convinced of that, it is enough to take a walk in the rainforest with a local youngster who has never seen a school, and then start asking questions. On the other hand, if you live in the rainforest, reading, writing and becoming familiar with the knowledge systems of the Western world may also be important, even necessary, instruments for defending your own rights and interests. It all depends on the way it is done – and the kinds of challenges that your community is facing.

When Rainforest Foundation Norway, as a small and recently created organization, started to engage in education projects for indigenous peoples in Brazil in 1992, it was not because we felt that education was inherently good or necessary. It was because many indigenous communities, as well as their pro-indigenous supporters, expressed the need to handle the interaction with and the pressures from the outside world in a better way. Our ambition, together with our Brazilian partner organizations (some of them already involved in such projects for several

years), was to develop an educational system which would combine respect for the knowledge, culture, language and social values of each indigenous group with the provision of new skills and knowledge necessary for dealing with those new challenges. The approach would have to be culturally sensitive, bilingual and definitely innovative.

In many cases an initial step was to establish – with the help of linguists – a way of putting into writing what had until then been a purely oral language. In no cases could we take the official Brazilian curricula and teaching methods as the starting point. None of the projects were formally endorsed by the government at the outset, although some were viewed with sympathy, and all of them gradually obtained materials and other support from federal or state-level education authorities. In the end these pioneering projects became models for the official, culturally differentiated approach to indigenous education in today's Brazil.

An enormous amount of energy, creativity and sacrifice has gone into transforming visionary ideas into a multitude of long-term processes benefitting some 40 ethnic groups throughout the Brazilian Amazon. The true heroes of those stories are the innumerable tireless, gifted, respectful and dedicated staff members of our Brazilian partner organizations. Fortunately, they were often able to find invigorating inspiration in their interactions with enthusiastic indigenous teachers who were not only receiving training, but who used the training courses to become authors and artists, developing new teaching materials for their own village schools.

It is a tribute to Norwegian youth and to the amazing international solidarity and fund-raising campaign called "Operation Day's Work – ODW", organized and administered by Norwegian secondary school students themselves for more than 40 years, that the projects described in this book could be realized. They would simply not have been possible without the consistent, long-term funding provided by the ODW campaigns in 1992 and 1997. On behalf of Rainforest Foundation Norway and our Brazilian partner organizations I wholeheartedly thank all those who gave the income of their day's work to these projects, as well as all those unpaid organizers at the school, district and national



Teacher Julio Barbosa Kaxinawa in front of his class at the Kaxinawa school in the Paroá village in Acre, 1985. This school was among the first that were organized by nongovernmental organizations in Brazil. Photo: Nietta Lindenberg Monte / CPI-Acre

levels who made this all possible. Special mention must be made of the ODW Project Council, which has meticulously studied annual plans, budgets, reports and accounts for all the projects as long as there remained a single Norwegian krone in the ODW project account. Our thanks also to the Norwegian Agency for Development Cooperation, Norad, for their generous willingness to extend that period, by providing co-funding when ODW funds were running low, thereby enabling more indigenous teachers to complete a full training cycle and more villagers to benefit from these innovative projects.

First of all, although I've saved this till last, I wish to thank the author of this book, Eva Marion Johannessen. As the Norwegian team member on four international third-party evaluations of Rainforest Foundation Norway's indigenous education projects in Brazil, Eva became so inspired that she launched the idea of tak-

ing the Brazilian experience beyond Brazil. In the end, she ended up writing this book herself, in dialogue and discussions with the Brazilian demographer Marta Azevedo, who for several years also served as a highly competent coordinator for one of the projects being evaluated. Eva has, with great pedagogical skills, managed to present four complex and diverse projects in a way that is easy to read, highlights lessons learned, but also challenges, and stimulates reflection.

It is our hope that this book can be an inspiration for educators, NGOs and governments in other countries – especially those with culturally distinct indigenous peoples or other ethnic minorities.

Lars Lovold
Director, Rainforest Foundation Norway



Yanomami girls in the Demini village. Rainforest Foundation Norway has supported the Yanomami education project since 1997. Photo: Thomas Nilsson / VG

One day of solidarity

On 23rd of October 1997, 180.000 pupils entered the streets, gardens, homes and workplaces all across Norway to do one day's labor. Instead of attending regular class, they chose to earn money to support education of indigenous people in Brazil. By the end of this day, 23 million kroner was collected to fund the Rainforest Foundation Norway's work in the Amazon Rainforest.

This annual tradition started in 1964, and is the single largest solidarity campaign for youth in Norway. Each year, a new partner is selected and awarded the income from Operation Day's Work (ODW). The funds are to be spent exclusively on education projects in the South. Living in a wealthy country where everyone

has the right and opportunity to education, ODW is an attempt to show solidarity with those that are not as fortunate.

And it works!

ODW 1997 contributed to funding education for underprivileged indigenous peoples in the Amazon, at a time when few others would. As a result, the empowerment and knowledge of these peoples, the Baniwa, the Wāiampi, the Yanomami, the Tukano and many others, has greatly improved. It has strengthened their struggle to survive, to fight external pressures and to preserve the forest and their way of life. In fact, it proved so successful that Norwegian authorities soon after decided to co-finance several of the projects. Later on, the Brazilian education authorities approved of the particular education models utilized, and also

used some of the experiences in developing a model for indigenous education in general. More recently, the successes of the Rainforest Foundation Norway's work has led to great interest far beyond some few education projects. The current debate on climate and forests and the immense importance of preserving what is left of the Amazon Rainforest, clearly shows the significance of supporting the people who actually live there.

It's a long way from selling cinnamon rolls in the streets of Norway, to the classrooms and schoolbooks of people in the Amazon. Still, distance was never an issue. Solidarity was.

*Knut Olav Krohn Lakså
President of Operation Day's Work 1997*

Preface

The main ideas in this book have been developed through numerous conversations with the demographer Dr. Marta Azevedo, in Brazil and in Norway. We first met in 2003, when she was the coordinator of the Rio Negro project. She has been involved in indigenous education ever since she was a young student. My thanks to Marta for sharing her vast knowledge with me, for inspiring discussions, for encouraging and critical comments, and also for writing the chapter on the recent history of indigenous education in Brazil.

The support of Lars Løvold and Torkjell Leira of the Rainforest Foundation Norway has made the production of the book possible.

Finally, my thanks to the Norwegian youth initiative, Operation Day's Work (ODW), which has financed the writing of the book.

Although Marta has read and commented on the chapters, I myself am responsible for any errors or shortcomings.

*Eva Marion Johannessen
Oslo, March 2009*

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Introduction

This book is about small education projects with impressive results and great potentials. Similar projects have also been developed in many countries of Latin America. Here the focus is on four projects among indigenous people in the Amazon rainforest of Brazil:

- the Yanomami in Roraima
- indigenous peoples in Upper Rio Negro in the state of Amazonas
- various tribes in the Xingu area in Mato Grosso
- indigenous peoples in Acre

The author has participated in the evaluation of these four projects. Through the evaluations I came to realize that the findings have relevance far beyond Brazil and Latin America. Through this book I wish to share my experiences with others.

Education is regarded as crucial for development; today we cannot imagine a society without education. But what is 'development'? And does it mean the same to people all over the world? Recent years have brought greater global awareness of the negative effects of the destruction of nature and the over-exploitation of natural resources and people in the name of 'development'. How can education be developmental in a broader sense, combining the preservation of traditional ways of living and learning with knowledge from modern technology? How can education contribute to a more culturally diversified world? How can it sustain development in rural areas? And how can education embrace all aspects of human development?

These fundamental questions are at the very heart of the work described here. In this book I want to show you how these projects have succeeded and the challenges they are facing.

The projects have been run with a range of different international and national donors.

One important and stable donor has been the Norwegian Operation Day's work (ODW), which is a youth initiative whereby Norwegian secondary school students give one day's work every year to support education projects in other countries. The projects in focus here have received reliable funding from ODW for several years, allowing them to start out as pilot projects and gradually develop into examples for other states and local communities. Rainforest Foundation Norway (RFN) has administered and supervised these projects, which have been carried out by local nongovernmental organizations in Brazil.

This book is especially meant for teachers, students and others who believe that an education that respects socio-cultural diversity can bring human benefits for all the people in the world. The main objective is to present and discuss some of the lessons learned, in the hope that these may prove useful for organizations, educational authorities and individuals who are involved in or planning to embark upon similar projects in other settings around the world.



The four projects have published a number of school books in indigenous languages and Portuguese.



Young yanomami girl during class in the "maloca" – the communal house where all families in the community live. The strong involvement by the community in the organization of the schools has been a key success factor in the indigenous education projects presented in this publication. Photo: Torkjell Leira / RFN

The four projects differ in their strengths and weaknesses. Some of the projects have produced many written texts, others not. One single book cannot do justice to the richness and diversity in the lessons learned over the years. The information presented here is based mainly on the external evaluations carried out between 2001 and 2007.¹ Since that time, the projects have continued to develop, but this book makes no attempt to cover the very latest developments.

The intention is to present some ways of education that differ from the mainstream in Brazil, Norway and other countries. Although the projects are small, they still may serve as sources of

inspiration to others, wherever they are. They show alternatives to the uniform global idea of what 'education' is supposed to be. It is my hope that the experiences from these projects may inspire you in your work, as indeed they have inspired me.

Chapter 3 deals with global challenges regarding education for all and the importance of local initiatives. Chapter 4, written by Marta Azevedo, covers the history of indigenous education in Brazil. Chapter 5 gives an overview of common features of the four projects, which are elaborated upon in chapters 6-9. Chapter 10 summarizes and analyses the lessons learned, and indicates some of the challenges for the future.

¹ The Yanomami project was evaluated in 2001, Rio Negro in 2003, Xingu in 2004 and Acre in 2007.

Brief presentation of the projects

The evaluations were carried out between 2001 and 2007. Most data in this overview are from 2005.

RIO NEGRO

- only area in Brazil with indigenous majority population
- continuous indigenous territory of 106,000 km² created in 1998
- 22 ethnic groups
- 30,000 inhabitants
- strong Roman Catholic missionary presence from the 1920s
- high level of literacy in Portuguese
- cultural and linguistic alienation

The project (Evaluation: 2003)

- initiated in 1999 and has received RFN support since the beginning
- restructure existing education system
- develop political-pedagogical plans and curricula
- respect for indigenous cultures and languages
- integration with economic activities
- local project partner: Instituto socioambiental (ISA)

Results

- schools serving 59 communities, 570 pupils
- full community participation in management
- new curricula developed, but not yet officially recognized
- school calendar adapted to local traditions and circumstances
- 3 indigenous languages introduced as medium of instruction
- indigenous teachers' organizations created
- 3 local languages recognized as official in the municipality
- teacher exchange visits to other projects
- project pilot school model became official model for all 200 primary schools in the municipality in 2006



YANOMAMI

- last major indigenous people in South America to have limited contact with 'modern' society
- 30,000 people in Northern Brazil and Southern Venezuela
- Brazil: Dramatic contact history, road construction and illegal gold mining
- 15 % of total population died 1987–89, leading to social collapse
- 96,000 km² continuous territory established in 1991
- monolingual population, four major Yanomami dialects spoken

The project (Evaluation: 2001)

- initiated in 1995 and has received RFN support since 1998.
- basic literacy (initially with non-indigenous teachers)
- establish Yanomami written language(s)
- train indigenous teachers for village schools
- develop political-pedagogical plans (PPP)* and curricula
- develop bilingual teaching materials
- teach Portuguese language
- local project partner: Comissão Pró Yanomami (CCPY)

Results

- 36 schools in five regions, 470 pupils
- 25 indigenous teachers, 15 teacher
- new curriculum developed, but not yet officially recognized
- teaching materials in native language
- Portuguese training through exchange programmes with Portuguese-speaking indigenous groups
- teacher exchange visits to other projects
- Yanomami indigenous organization (Hutukara) created in 2004

ACRE

- state in the Western Brazilian Amazon
- 34 relatively small indigenous territories covering 24,000 km²
- indigenous population 14,000 = 2% of total population
- 15 ethnic groups
- rubber extraction since late 1860s, many indigenous people fled or were forced to work in rubber extraction
- 8 indigenous languages spoken, 6 indigenous groups have lost their native language due to contact with 'modern' society

The project (Evaluation: 2007)

- initiated in 1983 and has received RFN support since 1993
- train indigenous teachers for village schools
- revitalize and strengthen indigenous languages
- publish teaching materials developed by indigenous teachers
- develop political-pedagogical plans and curricula
- lobbying activity aimed at local and state-level authorities
- local partner organization: Comissão Pró Índio do Acre (CPI/Acre)

Results

- 40 graduated teachers from 7 indigenous groups
- 40 schools in 15 indigenous territories, 6,700 pupils
- close connection with training of indigenous agro-forestry agents
- approximately 100 books and publications prepared, in indigenous languages, bilingual and Portuguese versions
- teacher training curriculum and specific indigenous education policies approved by state authorities
- indigenous teachers hired by the state
- the Forest People Education Centre established by CPI/Acre, the only institution in Acre allowed to authorize indigenous teachers.
- teacher exchange visits to other projects
- organization of indigenous teachers (OPIAC) founded in 2000
- organization of indigenous agro-forestry agents (AMAAIAC) founded in 2002

XINGU

- multi-ethnic indigenous territory established in 1960s
- continuous area of 27,000 km²
- 14 ethnic groups: 11 original, 3 from neighboring areas were moved into the territory by the state
- 14 indigenous languages spoken
- 4,600 inhabitants
- common belief: only Portuguese can be written
- many future teachers were semi-illiterate

The project (Evaluation: 2004)

- initiated in 1994 and has received RFN support since the beginning
- train indigenous teachers for village schools
- develop political-pedagogical plans (PPP)* and curricula
- teaching materials in local languages and Portuguese
- local project partner: Instituto Socioambiental (ISA)

Results

- 47 indigenous teachers recognized by authorities
- 40 village schools operating with local indigenous teachers
- Written forms of all 14 indigenous languages developed by indigenous teachers and linguists
- 35 school books, in Portuguese and indigenous languages, produced with active participation of indigenous teachers
- teaching materials produced in all 14 languages
- teacher training, curricula and political-pedagogical plans officially recognized
- public salary for teachers
- 15 indigenous teachers graduated from university, 4 in post graduate courses
- teacher exchange visits to other projects
- Indigenous Education Council created in 2005

Global challenges and local initiatives

Education for all

The first campaign on 'Education for all' (EFA) was launched at the Unesco conference of the same name, held in Thailand, in 1990. Since then, various strategies have been developed to provide basic education for all and eradicate illiteracy in the world. In 2000 the revised goal was set to be reached by 2015.

Many international efforts and campaigns have been launched. However, they have not yet yielded the results expected, and countries vary widely in terms of goal achievement. According to a World Development Report 'If countries continue at only their recent rate of progress, universal primary completion would come only after 2020 in the Middle East and North Africa, after 2030 in South Asia, and not in the foreseeable future in sub-Saharan Africa.'¹

Globally, primary school enrolment increased dramatically between 1960 and 1997, but it has proven difficult to sustain such rapid growth rates. Between 1999 and 2004 the number of children not attending school fell by around 21 million, but still 77 million children are either not in school or have dropped out. Two-thirds of these children are living in sub-Saharan Africa. Not only are there many children who are not enrolled, there are also far too many who never complete primary school.²

Particularly hard-hit are children from poor families in rural and remote areas. Reasons include lack of schools and/

or teachers, long distance to school, unaffordable school fees, and the poverty that forces children to work. Girls are less likely than boys to be able to attend school.

Global challenges and local initiatives

In order to reach children in rural areas, more and better schools are needed. Many people look upon rural life as backward, outdated and not attractive to young people, and migration to urban areas has become a major problem. Access to school and health care are among the factors that can make it more attractive to stay.

The indigenous schools presented in this book are local: they are found in villages where people live. They have been established according to the villagers' own wishes as to how they want their children to be educated. The modern, uniform, theoretical, urban type of education does not respond to the needs of all children. Many pupils drop out – whether they live in urban areas in highly developed countries or in rural less-developed communities in poor countries. Even Norway has a high drop-out rate in secondary education. Of course, neither the uniform urban school nor the local indigenous solutions described in this book should be seen as the right answer for all children. If we are to achieve education for all, a variety of educational approaches will be needed.

Alternative schools for children who have no access to or do not fit into main-



stream formal education can be found all over the world. But the various school reforms and alternatives have not resulted in a radically different type of school education suited to the needs of all learners. The schools in the Amazon rainforest represent something unique. They offer an education that is closely linked to the needs of the community and to the culture and traditions of the local people.

The schools in the Amazon rainforest represent something unique. They offer an education that is closely linked to the needs of the community and to the culture and traditions of local people. Kinsedje girls in the Ngowêre village in Xingu, 2006. Photo: Carsten Thomassen

In most discussions on education for all, it is taken for granted that school education is a blessing to everyone. It has become synonymous with being 'civilized' and 'modern'. Few are willing to listen to voices that are critical to formal education, voices arguing that it destroys and endangers the diversified informal education of children that has always taken place in families

and villages all over the world. History shows us that the first formal education of indigenous peoples introduced by European missionaries aimed at destroying values and customs considered primitive and uncivilized. These schools taught the local people that they should discard their old life and feel ashamed of their language and culture.

Quality of education

Merely building more schools and hiring more teachers is not enough: the quality of the education provided must be good. There are many reasons why children drop out from school or never enrol: poor quality is one of them. But the meaning of quality of education varies from one country to another and also within the same country. It may relate to school

¹ World Bank, 2004, p 112.

² EFA Global monitoring report 2007, Unesco

buildings, schoolbooks and educational materials, teachers, teacher education, teaching methods, relevance of the content, the language of instruction and distance to school, among other things. It also relates to how the education provided in a formal school corresponds with the traditional way of teaching children in the family and the community.³

It is a common finding that parents' support and interest in their children's schooling improve the quality. But what is less often considered is whether the quality improves when it is better adapted to the community's way of thinking and living. Instead, illiteracy among parents is considered a hindrance for their children's success in school, because the parents 'do not understand the importance of education'. It is not true that illiterate parents do not value formal school education – but it is hardly surprising that they should be sceptical to an education that looks down on their culture and values.

When it comes to the spread and transfer of knowledge, it is common to think of how to offer advanced modern technology and inventions to 'less developed' people and countries. The traditional knowledge and resources that served them well before the colonizers and missionaries came have rarely been subject

to serious study, and even today we are virtually ignorant about these matters. In today's industrialized countries, written, theoretical knowledge is valued over practical knowledge, and technology is

“Quality must be defined in terms of what the local communities want, and whether the education can support the goal of a sustainable life for future generations.”

tually ignorant about these matters. In today's industrialized countries, written, theoretical knowledge is valued over practical knowledge, and technology is



Students, teachers and elderly study the architecture of a traditional Panará house. Năsêppotiti village, Xingu. Photo: Paula Mendonça / ISA

separated from the environment, ethics and a spiritual life. Transfer of knowledge has not gone the other way around: from illiterate, 'poor' people to the wealthy, highly industrialized world. All aid workers in education and other sectors should start by asking what we can learn from the people of traditional societies, and not take it for granted that we possess the best answers to their needs. The indigenous people of the Brazilian rainforest lead very simple lives by Norwegian standards. But they do not consider themselves poor as long as they have enough to eat, and there is game in the forest and fish in the lakes and rivers. They have chosen to continue their traditional way of life because they like it, and they find it more attractive than moving to the cities. This is reflected in the kind of education they want for their children. That is what 'quality' means to them.

In most countries, a school can be recognized at a long distance, the way I learned to recognize churches in the

midst of the jungle along the river Tiqué in Brazil. The buildings are uniform, whether you happen to be in Africa, Asia or Latin America, and so is the way classroom teaching is organized. The walls of the school buildings also serve to mystify what teaching and learning are, distancing life inside the school from life outside. And what goes on inside is seen as more important than what goes on outside. School buildings are practical arrangements, but they should not be sacred (like most church buildings) and separate learning from the surrounding society. Teaching and learning do not know such boundaries. The indigenous schools described here have in many ways come closer to 'quality of education' than other prestigious education projects. *Quality must be defined in terms of what the local communities want, and whether the education can support the goal of a sustainable life for future generations.*

The next chapter presents the historical lines of indigenous education in Brazil.



Historical photo, probably from the 1930s, of indigenous boys at a missionary boarding school in the lauaraté village, Rio Negro. In this photo, the boys are separated according to indigenous group. The strong Roman Catholic missionary presence from the 1920s caused severe cultural alienation and the disappearance of many indigenous languages in the region. Photo: Dom José Dopritrovitz.

Indigenous education in Brazil:

History and recent developments

BY MARTA AZEVEDO

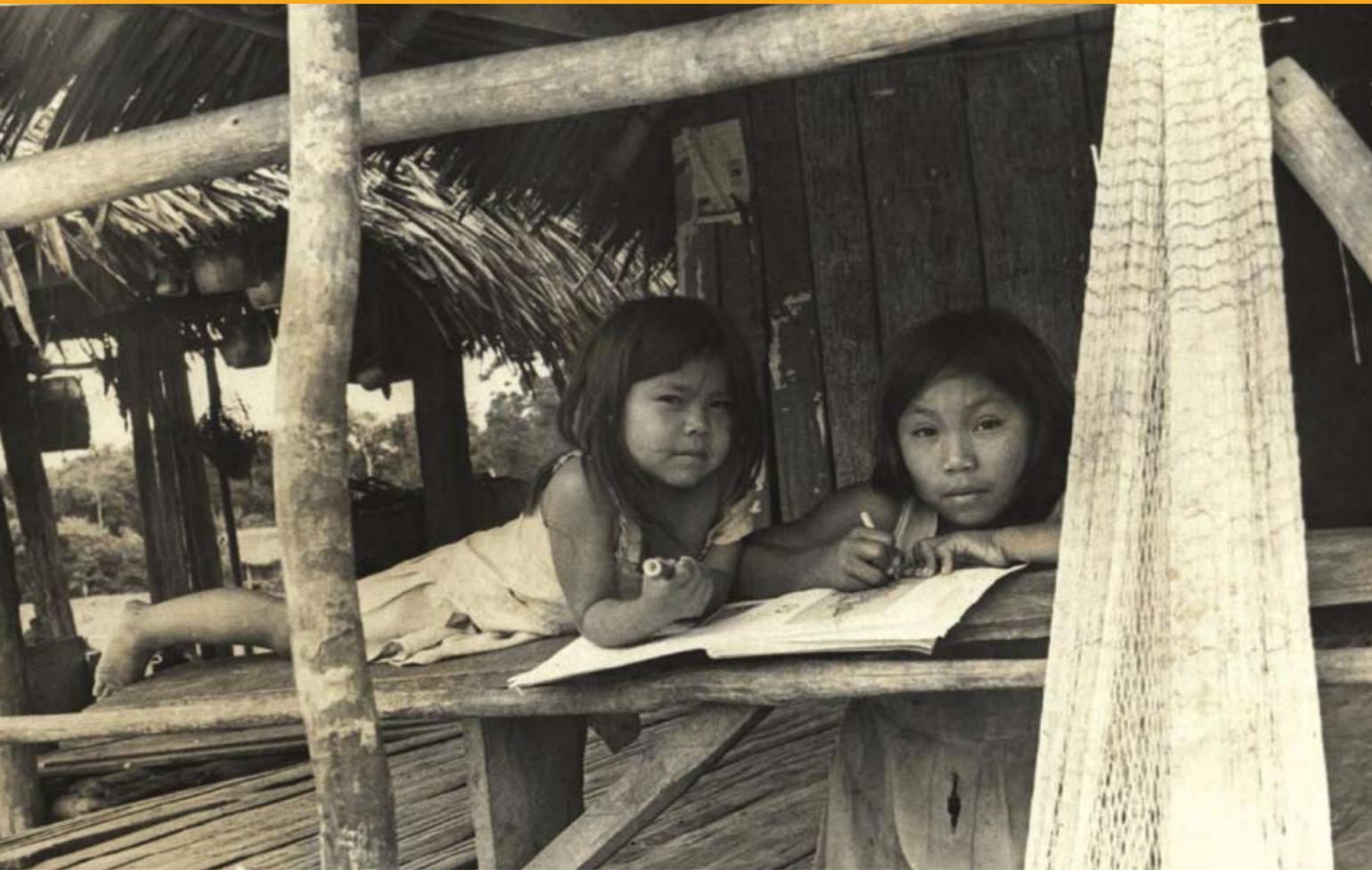
Change of paradigms: indigenous rights recognized

Throughout the history of Brazil, schools for the indigenous peoples have been instruments for evangelization and civilization. Their original objective was to transform the local populations into manual labourers who would work for the advancement of the colonies, for the colonial towns. In this period of Brazilian colonial history, missionaries had the job of 'educating' indigenous children and adults. With Independence (in 1822), very little

changed: the native populations were seen as remnants of the past, social groups that would need to be integrated into the new national society. In the 20th century, up until the 1980s, the SPI (Indian Protection Service) and its successor FUNAI (the Federal National Indian Foundation) supported the creation of non-religious schools in the villages, but still with the objective of integrating the indigenous people into mainstream national society.

By the late 1970s and early 1980s, global tendencies of recognizing ethnically and culturally differentiated peoples resulted in greater awareness and the emergence of a movement to promote the indigenous cause in Brazil. Indigenous leaders assumed a protagonist role in defending their rights, and thus the new Brazilian Constitution came to recognize and respect the rights of the peoples who had inhabited the continent before the arrival of the Portuguese colonists. The text of the 1988 Constitution replaced the former

³ Johannessen, E.M. Basic education – also a question of quality. Save the Children Norway 2006.



Young students at the Katukina school in the Kamanwa village in Acre, 1985. This school was among the first that were organized by nongovernmental organizations in Brazil. Photo: Nietta Lindenberg Monte / CPI-Acre

integrationist perspective with respect for ethnic diversity, recognizing cultural plurality, and securing the right to be different – and the state had the duty to guarantee these rights. The Constitution recognized the social organization, customs, beliefs, traditions and original rights of the indigenous peoples over their lands. It guaranteed to all the full exercise of their cultural rights and access to the sources of national culture. And that meant that the school system would have to be re-structured.

Role of nongovernmental organizations and international cooperation

From the 1970s, indigenous and indigenist leaders (non-indigenous people working with indigenous peoples to promote their cause) began to express their criticism of the schools established by the Christian missions and the FUNAI. Conducting classes in Portuguese, when the children

do not speak the language; demanding that the parents speak Portuguese in the schools; making school uniforms obligatory; requiring the pupils to read and write about irrelevant and alien urban subjects: all these practices were heavily criticized. They had proven themselves useless in terms of education, besides being destructive of traditional values. This new movement was based on the recognition that schools for the indigenous peoples of the villages still had the same old objective of colonizing them and civilizing them. The idea that emerged was that these people and their way of life should be respected, that their schools would have to be based on quite different objectives and should include the indigenous languages and traditional knowledge in their curricula.

Various anthropologists and indigenists created alternative education projects aimed at structuring other types of indig-

enous schools, in the belief that education for the local populations would become better without 'colonizing' schools. A central principle was that the school was not a good institution in itself: that is, the formal school had been, and had continued to serve as, an instrument of socio-cultural and economic massacre of the indigenous peoples in many countries. The major inspiration for these projects was the philosopher of education Paulo Freire. In the 1970s, his philosophy was widely diffused among Brazilian educators, despite all the political repression of that time. One of Freire's fundamental ideas was that those who are to be educated, the pupils, do not come to the schoolhouse with no prior knowledge or training; they are not 'empty boxes' to be filled with knowledge brought in from outside. Therefore, schools ought to include discussions and reflections about the kinds of knowledge and training in the communities in which

they would operate. We found this concept very useful for thinking about the indigenous schools with which we were beginning to work.

In 1979, a first meeting on indigenous education was held in São Paulo in which this group of people who were engaged in alternative projects participated. During the 1980s, the Operation Anchieta (OPAN, now known as Operation Native Amazonia), an indigenist NGO, facilitated four meetings of people engaged in indigenous education projects. During these meetings, the professionals involved with these projects in the most diverse indigenous areas worked on formulating the principles of specific and differentiated school education. Main topics discussed at these meetings included: a) literacy of indigenous children in their own languages (and the importance of this in child development); b) the training of indigenous (as against 'outside') teachers; and c) whether or not to make indigenous schools official. A book was published with the results of these reflections, which also contained a chapter on each of the indigenous education projects¹ discussed during the meetings.

This practice of holding meetings on the questions confronting the different teams of nongovernmental organizations was much utilized also in the 1990s. With the beginning of the training of indigenous teachers, who gradually replaced the non-indigenous teachers, a movement of indigenous teachers began in the north of Brazil. In 1989 a first meeting was held in Manaus in the state of Amazonas. Over the next decade, teachers from Amazonas met each year to discuss questions of indigenous school education. At their third meeting, in 1991, the teachers prepared a Declaration of Principles, with 15 points detailing their demands and ideas on village schools. This Declaration of Princi-

ples² became well-known and was published on posters, as well as being cited and discussed in the National Curriculum Statement for the Indigenous Schools, published by the Ministry of Education in 1998.

While the teachers in the North were gathering in these reflection meetings, in the state of Acre and in the Xingu region (in the state of Mato Grosso), training courses for indigenous teachers gained momentum. They were imbued with a new philosophy that focused on in-depth participation of the local communities, including the languages and knowledge of the peoples and reflecting on the role of the teachers and the schools in the communities during the process of training. These courses, promoted by nongovernmental organizations, established a new philosophy for teacher training that was later taken up by the Brazilian state. All the ensuing courses in training indigenous teachers were inspired by these first experiences.

Principal changes in legislation in the late 1980s and early 1990s

All recent texts on indigenous school education build on the new principles about the relation between the Brazilian state and indigenous peoples, and seek to be in accord with the principal international mechanisms for defence of the rights of traditional peoples. All the legal measures are based on respect for the ways of knowing, the practices and the intellectual heritage of the indigenous peoples, and respect for the differing social, political, economic, and cultural organizations of each indigenous group.

The Brazilian Constitution of 1988 acknowledges that the indigenous peoples inhabited this territory before the colonizers arrived. In consequence, it recognizes the rights to indigenous lands, to the spe-

cific usages and customs of each people, including their social, political, and economic organizations. With regard to schooling, it specifically guarantees to the indigenous peoples of Brazil the same right to a basic education as that of all other citizens, including the right to use their mother tongues and their own specific processes of learning. Thus it guarantees the right to cultural otherness in school education.

In 1991, on the eve of the United Nations Conference on Environment and Development (also known as the Rio Summit, Earth Summit, or, in Portuguese, Eco '92) in Rio de Janeiro, the Brazilian government finally transferred responsibility for indigenous school education from the FUNAI to the Ministry of Education. That meant that members of indigenous groups came to be the holders of the right to school education like all other Brazilian citizens, safeguarding the specificities of the rights of indigenous peoples.

From that time onward, the Ministry of Education assumed responsibility for formulating and publicizing a national policy for indigenous school education. In 1993 it issued the 'Directives for the National Policy of Indigenous School Education', prepared by anthropologists and other specialists in indigenous school education who were consultants for the Ministry of education. In this publication, the principles of the new indigenous school education are set out in detail. It must necessarily be specific and differentiated, intercultural and bilingual. The document states that the indigenous school has socio-economic and cultural autonomy of each people as a main objective based on the recovering of their historical memory, the re-affirmation of their ethnic identity and the study and appreciation of their own language and their own knowledge. This is synthesized in their various ways of

¹ A Conquista da Escrita – Encontros de Educação Indígena. Loretta Emiri e Ruth Monserrat (organizadoras). OPAN, Editora Iluminuras, São Paulo, 1989.

² On this see the book by Rosa Helena Dias da Silva, Encontros de Professores Indígenas, Editora Abya Ayla, Manaus, 2000



Historical photo, probably from the 1930s, of young indigenous girls at missionary boarding school in Rio Negro. Photo: Unknown

knowing, as well as in access to the information and technical and scientific knowledge of the larger society and of other societies, indigenous and non-indigenous. The indigenous school has to be an integral part of the education system of each people ensuring and strengthening both the traditions and indigenous way of being and the elements necessary for a positive relation with other societies.

In 1998 a group of specialists working on the elaboration of the national policies for indigenous school education together with the staff of the Ministry of Education proposed a first version of the "National Curricular Reference for the Indigenous School" (RCNE/Is). This is a curricular proposal that provides references for discussion and curricular practice for the indigenous schools. The document was revised in 2004, and widely distributed to all indigenous schools and teachers. Although it may be outdated now, it stands as a document that marked the change in the paradigm of curricular content for indigenous schools. It established central principles like the inclusion of traditional knowledge in the curricula, and the participation of the communities and indigenous teachers

in formulating Political-Pedagogical Plans – the basic school documents describing the philosophy and pedagogical principles of the school.³

The new National Law of Directives and Bases for education (1996) establishes a series of general principles for teaching, among which are the pluralism of ideas and educational concepts; recognition of the school education professional; recognition of extra-curricular experience; and the linkages between school experience, work and social practices. Regarding indigenous education in particular, it complements the formulations of previous laws, determining the development of integrated programmes for teaching and research, for the provision of bilingual and inter-cultural school education for the indigenous peoples of Brazil. These integrated programmes of teaching and research are to be planned with the participation of the indigenous communities, and must aim to a) strengthen the socio-cultural practices and the mother-tongue of each indigenous community; b) maintain programmes for training specialized educational personnel to work in indigenous communities; c) develop specific curricula

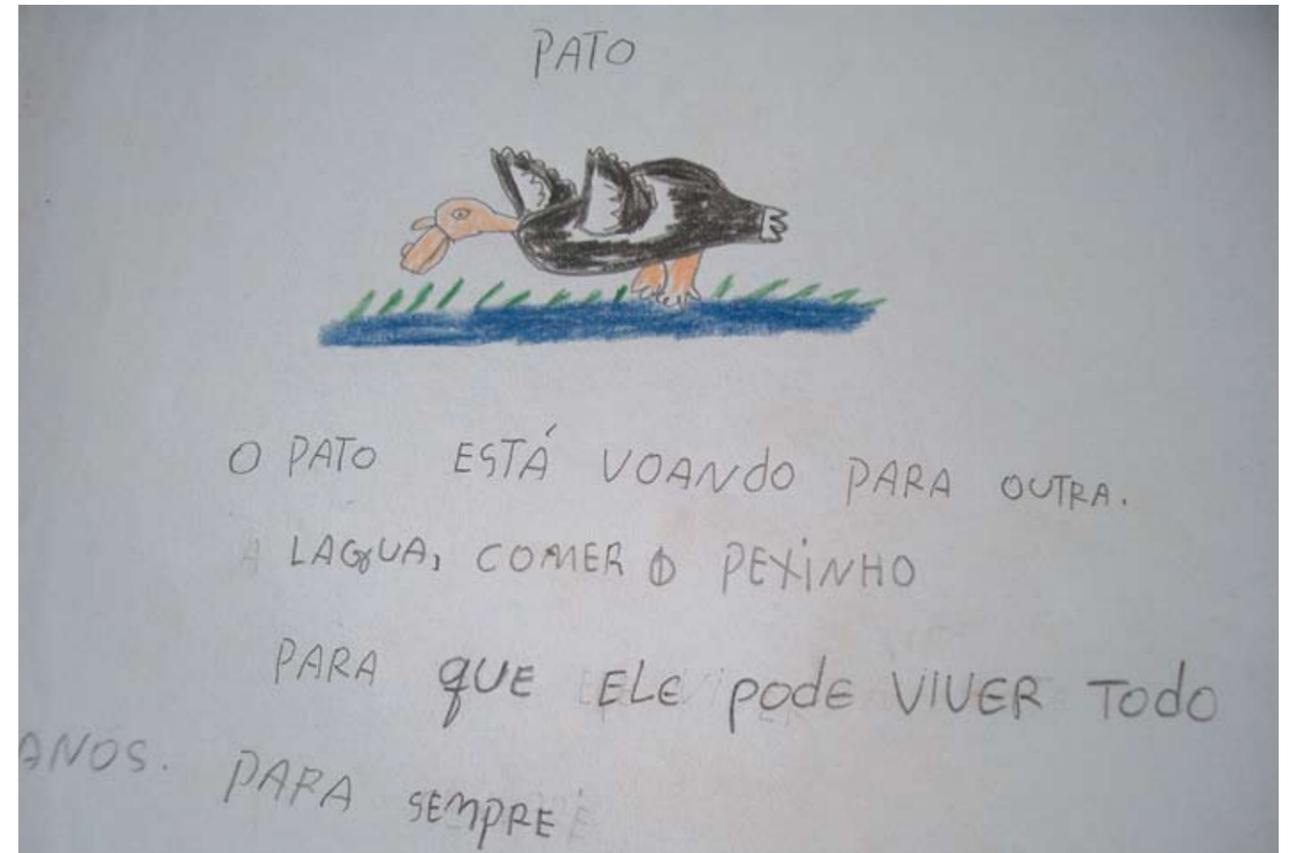
and programmes; d) prepare and systematically publish specific and differentiated teaching materials. With the new conceptual and legal paradigm, schools in the local communities should have changed. The indigenous communities should now be discussing new objectives for their schools, new projects for their villages and, thus, new pedagogical projects for their schools.

However, although the laws have changed, Brazil is a vast country. Most of the indigenous areas are situated in Amazonas, and even in the South and South-eastern regions, the villages are little known and local governments do not like to have indigenous groups in their territories. Prejudice remains rampant; the idea that the native peoples are savage, undeveloped, unsophisticated or lazy still holds among public school educators in many states, including São Paulo.

Current context: statistics, evaluation and great challenges

The Ministry of Education remains the agency in charge of formulating public policies for indigenous school education. Although small, the staff responsible for this within the Ministry has worked to stimulate the state and municipal authorities to improve primary schooling among the indigenous communities. The priorities have been to train teachers and to build new schools in the communities.

Much has been done by nongovernmental organizations along with international cooperation, to transform the schools into institutions that are of value to the communities, rather than working against the traditions of the indigenous peoples. However, a great deal still remains to be done – especially in those areas where nongovernmental organizations have not been active, and where the technical staff of the state and municipal authorities are totally unfamiliar with the indigenous



The duck is flying to another lake to eat fish. So that he can live all the years. Forever." Practicing drawing and written Portuguese. Photo: Eva M. Johannessen.

peoples, their history, social organization, way of life and traditions. Without such knowledge, they lack the most basic preconditions for even thinking about the development of the indigenous schools; and when they visit the communities they approach the indigenous children with preconceived notions and with a top/down Western worldview.

Important here is the fact that in the mainstream schools, the history of the indigenous peoples has not been taught; and the indigenous question has not been discussed in primary education or at higher levels. Subjects like history and geography have been taught as though the indigenous peoples of Brazil were extinct,

with perhaps only those of the Xingu area surviving. The specialized staff of the state and municipal education authorities are generally not even aware that there are indigenous groups living in all states of modern Brazil.

The most recent data on indigenous schools are from 2006, and come from the School Census, a survey carried out by the Ministry of Education. According to the 2006 survey, Brazil has 2,417 indigenous schools, with 172,256 enrolled pupils. There are about 10,000 teachers working in these schools, of whom 90% are indigenous. However, only 467 (less than one fifth) of these schools provide the upper level of primary education, from grades 5

to 9. Only 91 schools, less than 4%, offer post-primary education. Although this figure has increased in recent years, it is still low in terms of what is needed.

On the other hand, indigenous schools should not simply continue to grow in number without heed to the quality of the education that they provide. As history has demonstrated, a school that fails to take into account the specificities of the people it is meant to serve may become an instrument of socio-cultural de-structuring.

³ See chapter 9 for further details on these documents.

Watching the mountain from the circular communal house at the Demini village. The Yanomami education project started here in 1995. Photo: Siri Nærland / RFN.

Indigenous schools in the rainforest

This chapter gives an overview of the educational background and philosophy of the four projects dealt with in this book. The main issues will be further elaborated and analysed in the next four chapters.

All four projects share the same overall philosophy, but a differentiated and culturally specific education is encouraged. The various schools are different, and should develop according to what the local community wants

Background

Most of the indigenous schools in these projects cover the first grades of primary education – 1st to 4th grades – and some also 5th to 9th grades. They are subject to the same official rules and regulations as other primary schools, and the municipality or the state pays the teachers' salaries. The majority of the indigenous teachers are male. Nongovernmental Brazilian organizations provide teacher education and follow-up in the villages as well as seminars for the communities.

Indigenous education is part of the larger society: it cannot live and develop in isolation. There is a constant struggle to find a balance between an education based on the wishes of the local communities, and the non-indigenous school system. After all, the indigenous schools are dependent on support from political authorities outside their territories.

Do the indigenous people need their own formal school?

The most important education takes place in informal settings and not in a formal school. Indigenous schools were established primarily to teach children how to read, write and do arithmetic. In some of the states where these projects are being carried out, there have been recurrent

conflicts between the indigenous groups and non-indigenous people who live in or close to the territories. The threats have come from the government, from private enterprises and individuals who invade the indigenous lands in search of gold, timber, and other natural resources, as well as from rich and politically influential farmers whose agricultural practices pollute the rivers. Indigenous people need to be able to voice their opinion in the majority language (Portuguese), they need to know more about their rights and how to defend them, and they need to know more about how to develop and take care of their natural resources.

Overall goal and principles

The overall goal of these educational projects is to support the continuation and development of the indigenous culture and ways of living in the rainforest. The teaching and learning, the organization of the school day and the administration of the school should all contribute to this overarching goal.

The education offered is differentiated and specific. Each community recognizes that its school is different from other village schools as well as from non-indigenous schools. The inter-cultural aspect means that the children need to learn about the language, culture, science and technology of the larger society and the world.

School and community

Teaching and learning in the school should be in harmony with the education that the child gets in the family and the village.

School is not more important than community life: in fact, community life must come first. Children are not merely pupils – they are community members. They must be able to participate in cultural events as well as assist in practical work according to the needs of their communities and families, and of the season.

Formal and informal education

Informal education plays a more important role than formal schooling among indigenous people. The fathers teach their sons and the mothers their daughters the skills that they will need. The knowledge of elderly people is highly valued; they are masters of their history and traditions.

This informal education from parents to children is practical and specific. The 'teacher' shows how a task is carried out, and then the child copies what the adult does. Young children in Rio Negro said the informal teaching they got from their mothers and fathers was easier to understand than the teaching in the classroom.

The indigenous school tries to reconcile formal and informal education by inviting elderly people into the classroom. Objects and tools used in the community are studied in school. The teaching starts with the children's practical experiences or with a practical lesson, for example planting in the field.

In one of the Yanomami schools, the merging of formal and informal education has been demonstrated by the very way in which the school is defined. The



Students, teachers and guests at the formation at the Tuyuka school in the São Pedro Community, Rio Negro, 2005. Photo: Beto Ricardo / ISA

Yanomami live in huge communal houses (*maloka*), and in one such house a special place has been indicated for school activities, with a blackboard and desks. The school is not separated from normal household activities by walls or partitions – but this arrangement did not disturb the teaching and learning in the “classroom”.

Teaching and learning

The teaching is flexible, active and respects the child’s autonomy. In the indigenous school, the pupils are involved in a learning process that is not strictly defined by time and age. They work at their own pace. The children’s achievements are evaluated in terms of their theoretical and practical work, as well as with respect to behaviour in a broader sense.

Self-made books and education material. All four projects feature self-made books. They may be based on investigations of indigenous history and culture carried out

by the teachers or by the teachers and pupils together. The pupils may be involved in project work and write reports that later serve as textbooks. These written products are not primarily prepared for the teacher. They are the cherished and visible fruits of the children’s performance, for everyone to observe and admire. Drawings are essential parts of these books.

One example of locally made education material was observed in a school where the pupils and the teacher studied the natural resources of their community, and then drew a map showing the local names and where these resources are located.

Bilingual/multilingual education

A major aspect of indigenous education is the active use, development or revitalization of local languages. Some projects have engaged linguists and social anthropologists who work closely with the local people and indigenous teachers, gradually

reaching agreement on the meaning and use of words and expressions. The second language taught is Portuguese, the language of the majority population of Brazil.

Teacher education

All four projects involve teacher education during school holidays. This training has the same characteristics as the education of the children: people work at their own pace, and it may take many years to train a teacher. Teacher education has been gradually expanded, and teachers may now continue their studies at the university.

In the following chapters we look more closely at four main issues: a) bilingual/multilingual education, b) teaching, learning and evaluation, c) teacher education and the role of the teacher and d) the school in the community.



Teachers and students in the São Joaquim village, Acre, 2007. Photo: Eva M. Johannessen.

A multicultural classroom

The indigenous school aims to be bilingual. A local language should be the medium of instruction, whereas the second language is Portuguese, which is the majority language in Brazil.

The importance of local languages in teaching is recognized, in Brazil as well as internationally. All the same, it is still common to look at a child’s mother tongue as inferior to majority languages like Portuguese and English. Local languages tend to be valued only if they facilitate the acquisition of the majority languages that dominate science, literature and politics. In the four projects described here, the role of local languages is a broader one, closely linked to identity and cultural awareness.

Medium of instruction

Which languages to use in instruction is a major political and educational issue. Brazil has recognized the Universal Declaration of Linguistic Rights. According to the federal Brazilian Constitution of 1988, the country’s language policy is determined by the government, but indigenous people have the right to determine the languages of instruction and how to organize teaching and learning in their schools. As yet, São Gabriel da Cachoeira in Rio Negro is

the only municipality that has declared three equally official local languages. The municipality has a 90% majority indigenous population and highly organized indigenous movements.

The choice of the medium of instruction is a political issue because it defines the relationship between individuals, between the teacher and the pupils, between different groups of indigenous people, as well as between the Portuguese-speaking and non-Portuguese-speaking people. The



Young Kuikuro students carrying out research on natural resources around the Ipatsé village in Xingu. Photo: Rosana Gasparini / ISA

right to be taught in one's mother tongue is closely linked to identity and culture. Lessons learned from all the projects in focus here show that teaching and learning in the local languages enhance the motivation and understanding of teachers and pupils alike. It seems to instil a deeper interest in the indigenous culture and is thus a key factor in efforts to protect and promote the continuation of the life in the rainforest.

During a conversation with young people in Acre, it became clear that both girls and boys wanted to stay on in the village, exploring and learning more about their peoples' history and traditional ways of living. The more they learned about these matters, the more interested they became. In a school in Xingu, the pupils were busily engaged in learning about old house construction techniques transmitted to them by the elderly men of the village. The terms and expressions they used were difficult to translate correctly into Portuguese; they had to be explained in the local language.

International research has shown that the way to bilingualism starts with the mother tongue. Several indigenous teachers have also mentioned this. As stated by one teacher in Acre: 'In my opinion we first have to learn to read and write in our indigenous language before we move on to learning Portuguese.'¹

Research has also documented that the results are better when the mother tongue is the medium of instruction and not only taught as a subject. The four projects described here have shown that the study and use of local languages strengthen the indigenous people's culture and identity. On the other hand, it takes a long time to master a local language that is in the process of being revitalized. If a language has not been actively used for many years, and has few speakers, achieving proficiency is a

lengthy process. Teachers in some of the projects said that they did not feel comfortable teaching in their mother tongue as they still working to learn it themselves.

Some areas are multilingual, with several local languages spoken. Many of the children know two or three local languages. In these cases it has to be decided which one should be the medium of instruction. Some children belonging to a minority group may not be able to be taught in their mother tongue. In a multilingual area, the people may even decide that Portuguese should be the language of instruction.

To succeed with teaching in an indigenous language it is crucial to find competent teachers. A teacher who has not mastered the local language may slow down the children's learning process: likewise if the instruction is conducted only in Portuguese. In villages where there is little awareness of the role of the language of instruction, it may be that the teacher masters neither the local language nor Portuguese.

A problem in areas where the indigenous languages have not been well preserved is that there are few fluent speakers. Elderly people may claim that they do not know enough to transmit their mother tongue correctly to the young generation. The local languages are perfect instruments for history and traditions, but are less suited for describing the new, modern world. More words and expressions need to be developed or borrowed from the majority language.

In some areas, few of the non-indigenous Brazilian teachers and advisers to the projects speak the indigenous languages. This has restricted their communication with the indigenous people and the understanding of their culture.

From oral to written language

It is a sensitive and complex task to transform oral languages into written languages. Oral and written languages are two different modes of expression, and some nuances get lost in the process of conversion. In the process of creating a written language, it is important to allow ample time for a thorough reflection on language styles, including oral poetry, recitation, songs, discourses and many other styles that need to be studied specifically for each local language.

Some have even questioned whether indigenous people need to know how to read and write in their local language. One thing is clear: If they do not need such skills for survival, and do not practise reading and writing, the new skills will fade away.

In all four projects, the transformation to written ways of expression seems to have contributed to the further development of local languages, as well as to the revitalization of languages that may have been oppressed and nearly forgotten. For example, in a small village in Xingu the local language was not in use. There was only one old woman who spoke it – and she devoted her time to teaching and advising the teachers and the children. If they had any questions, they would come to her for clarification.

The process of revitalisation of local languages has been educational to the communities. Those who still speak the local tongue find themselves discussing the meaning of words and expressions, and trying to reach agreement. Engaging linguistics and anthropologists in this process is an investment that has contributed to the progress and results achieved. In some indigenous communities that have not profited from this type of support, the teachers are not able to teach in the local language, nor do they have educational materials in their language. The

¹ Caderno de reflexao do professor indigena, OPIAC, CPI Acre 2005



Drawings on the walls of the centre of the Tuyuka Utapinoona Indigenous School Association (AEITU) in the São Pedro community in Rio Negro. AEITU was created as a result of the Rio Negro education project to lead the administration of the school together with the community. Today AEITU is a solid organization and receives funding directly from Rainforest Foundation Norway. Photo: Beto Ricardo / ISA

written language is used primarily to describe feelings, situations, local history and traditions. It is also used to write letters and messages to friends and family in neighbouring communities, as well as poems and stories. In all the projects, books and educational materials have been written in local languages.

The majority language

In all the projects there has been a strong wish among the villagers to learn the national and majority language, Portuguese. None of the indigenous peoples in the projects live totally isolated from

mainstream society. The Portuguese language enjoys high status. It is the language spoken in the cities and schools outside the territories. In Xingu the main reason why many were positive to the introduction of a village school was that it would allow them to learn Portuguese, the language they need in their contact with mainstream. In fact, some parents in Xingu send their children to school outside the indigenous territory because they think it is more useful for them to master Portuguese than to be taught in the local language. Among the Tuyukas of Rio Negro, who

have revitalised their local language, there has been discussion as to the right time to start teaching Portuguese. Tuyuka is the medium of instruction the first four years of school, with Portuguese gradually being taught from grade 5. It has been considered more important to develop the local language than Portuguese. Those who recognized the link between a strong indigenous identity and mother tongue wanted to postpone the introduction of Portuguese until the local language had been firmly established. The more aware they became of the importance of the local language, the more

has historically been very strong and many speak it. It may be the teacher's first language. The challenge is then to re-establish the local languages. In the Yanomami villages, by contrast, few spoke Portuguese and the local language was in active use.

Through news and communication with the Portuguese-speaking world outside the indigenous territories and through non-indigenous teachers and advisers in the projects as well as through contact with the municipal government, people in all the projects are living in a bilingual and multilingual context. When the children write small stories and texts in Acre for example, they write in Portuguese. That is the only way to communicate with the non-indigenous advisers and trainers if they do not know the local language.² The indigenous teachers also learn to practise Portuguese through the teacher training sessions, as nearly all of the trainers are Portuguese-speaking. Thus, contact with non-indigenous Brazilians in the project represents a continuous language exercise in Portuguese.

When to start teaching the second language

There is no right answer as to when the second language should be introduced in school. One finding from other countries where children are taught in their mother tongue is that their performance scores in the second language are not as good as expected.³ Some claim that the teaching of both languages should take place in parallel. This is actually what goes on in some areas today, when the teaching is in Portuguese and words and sentences are translated into local languages, or when the pupils are asked to write stories and sentences in Portuguese or in the local language. In the evaluations of all four projects, the issue of teaching methods has been raised and suggestions made on how to improve the teaching of Portuguese. There is no doubt that teaching

In the Baniwa school (a boarding school from 5th grade) in Rio Negro there has been an ongoing discussion since the beginning of the project on how to maintain Baniwa as the medium of instruction. They are engaged in developing their language to include, for example, universal scientific terms in mathematics and in computer technology.

In other areas, as in Acre and some villages in Xingu, the influence of Portuguese

methods may be improved, but we do not know how much that will help if there is otherwise little opportunity to practise the second language. The Baniwas seem to have been most successful regarding parallel teaching in the local language and in Portuguese. The Baniwa school starts with 5th grade, when the children are 11 to 12 years old. At this age they are generally capable of reading, speaking and writing in both the Baniwa language and Portuguese. But more research is needed to show why the Baniwa project has succeeded in parallel teaching.

How to learn the second language

A major challenge in some areas has been that there are too few occasions for using the second language (Portuguese), as few in the villages speak it. This is particularly difficult for tribes who live isolated from the non-indigenous people, like the Yanomami. In an attempt to solve this problem, teachers in training have been given the opportunity to go outside the territories to learn Portuguese. This arrangement has been only partly successful, as they do not need to use Portuguese in their daily life once they return to the village. Sending the Yanomami teachers to live in the city for a period has also been a challenge. Many find it difficult to adapt to urban life and are negatively influenced by it. The solution has been to arrange exchange visits to other indigenous groups where Portuguese is more commonly spoken.

Becoming proficient in a second language, in this case the majority language Portuguese, is a long process. Indigenous teachers who have studied for a while become gradually more competent through the training they get, which also includes extensive writing and reading in Portuguese.

² In other areas like the Yanomami and Rio Negro, external advisors have learned to speak the local language.

³ Johannessen, E.M. Basic Education – also a question of quality. 2006.

Teaching, learning and evaluation

Through observation of the four projects in different classrooms, the meaning of a social and culturally specific and differentiated school becomes readily apparent. Although they have several things in common, each school is unique.

Active and flexible teaching and learning

Teaching and learning in the village school is active, flexible and varied. It takes place inside and outside the classroom. Some schools have tried to group the pupils according to age and ability, whereas in other classrooms there are wide disparities in age. In practice, it is difficult to use the age criterion that is so widely applied otherwise in non-indigenous schools. Many classrooms also have adults who want to become literate, and the teacher will not refuse an eager learner. Younger sisters and brothers and even babies may accompany their siblings to school. The schools are ready to accept all learners. In the Yanomami villages for example, girls marry early and have babies at a young age. Many of them have been well received in school with their little ones.

These practices show that the community at large is interested in the school – while also allowing social control of what is going on in the classroom. This is an inclusive education where the boundaries between age groups and abilities are flexible. The classroom may appear disorganized compared to the rules in schools outside indigenous territories: but would be more correct to say that it is differently organized and in harmony with the heightened community involvement that the project seeks to promote.

Respecting the autonomy of the child

Generally the children are eager to learn. The teacher and the teaching respect the autonomy of the children, and active teaching methods are common. The children come to school because they want to, not because they are ordered to. As one teacher in Acre explains:

The indigenous school is differentiated because it lets the pupil be autonomous. If the pupil wants to go to the mathematics class, he will be well received, but if he does not want mathematics and prefers indigenous language, he will also be received there, and not regarded as a pupil who is frequently absent. And if he has to go fishing or do any other service for his parents and develop through other work, he is allowed to do so. The school is not disturbed if the children learn through other activities. Afterwards, they come to school and will be well received. (...)¹

Although most classrooms have desks, the children may decide to lie on the floor – writing, copying from the blackboard, working individually or with their friends. Some schools have tried to follow a 45-minute timetable, but apparently without much success. It is more common to see children working concentrated at their own pace until they are finished.

In one school I observed the following example of respecting a child's autonomy: A little boy was sitting close to the

blackboard, absorbed with his drawing. The teacher was teaching another subject to the other pupils. I thought the boy was being punished for not having done his homework, but the teacher explained afterwards that he had allowed the child to finish yesterday's work, which he found very interesting. It was about snake patterns and he was now studying them and copying from a book.

Concentration

In some of the schools I visited, a lesson could go on for two hours without a formal interruption. When the children needed a break, they left the classroom (very few did) or they just relaxed in the classroom, and this did not disturb the learning atmosphere. Even after school hours, many came to the classroom to work on their own or together with the non-indigenous teachers.

Guidance and advice

In the traditional apprenticeship model in the villages, teaching goes from master to trainee. The same pattern can be observed when the teacher is lecturing and guiding the pupils in the classroom. In the Yanomami school, for example, the young indigenous teachers did not lecture in a traditional way. They wrote tasks on the blackboard and the pupils worked on them, individually or in groups. The groups of learners were small and the teachers spent more time advising and guiding their pupils than on lecturing. The non-indigenous



Teacher Yapariva Yudja and young students in the Pequizal village, Xingu, 2006. Photo: Paula Mendonça / ISA

teachers and advisers often worked closely together with the local teacher trainees, demonstrating practical participatory methods. The same type of gentle guidance of pupils was observed in the Pamáali Baniwa school in Rio Negro.

The teachers recognize that it is important to encourage the pupils and get them to participate. They observe what each and every child likes to do. One teacher in Acre explains: 'If a pupil does not understand a text and it is difficult for him/her to learn, I arrange another activity for him which he likes, or find another and more simple way of teaching him. I do this so that a pupil

won't get discouraged to realize that his friends are all reading, and so that the disparity between those who know and those who don't will not become too great.'² Teachers should not use methods in the classrooms that are not accepted in the community. They have to know and respect how parents educate their children. In one school in Rio Negro, the teacher said that under the influence of the missionary schools they had used physical punishment to discipline the pupils, but that such methods were not in line with traditional indigenous education and they had stopped doing it.

Copying and writing

Blackboard teaching is also common. The

teacher writes on the blackboard and the pupils copy. In one village school, we observed a teacher who was writing on the blackboard for nearly an hour. He was presenting the results of an investigation into local history, and this was part of the development of a textbook. A lot of time is spent on writing because teacher and pupils alike want to improve their writing. Being able to write shows that they are literate. They write in the local indigenous language or in Portuguese. Copying is also in line with the apprenticeship model. The apprentice learns a skill through observing and copying the master until he or she knows it just as well or even better than the master.

¹ p. 11 Caderno de reflexao do professor indigena, OPIAC/CPI Acre 2005.

² Caderno de reflexao do professor indigena, OPIAC/CPI Acre 2005.



Ethnomathematics class in the Tuyuka Utapinopona school in Rio Negro. Photo: Beto Ricardo / ISA

The love of writing in the local language was noticeable in the Yanomami village school. There was a lack of textbooks, but, after regular school hours, pupils engaged in endless study of what they had written in their notebooks. They also wrote letters and messages to friends and teachers.

Older people as teachers

Older people are invited to the classroom to tell about traditions that are not found in the books. In one school, three old men had been invited to tell the pupils about the construction and decoration of old communal houses (maloka), and the children listened and asked questions. The pupils may also visit community members in their homes and ask them about medical plants, animals, myths, spiritual life and customs. The elderly people often tell stories when they are teaching the children, and serve as

important carriers of oral tradition through the way they express themselves. They have different specialities. One may be an expert on myths and stories, another teaches traditional music, while others are experts on medical plants or on fish and other animals.

Interdisciplinary teaching

In the Tuyuka school an interdisciplinary approach was common. The pupils did project work and investigated community-oriented issues – for example, the natural resources in the community, the old names of rivers and mountains, birds and fish, handicrafts, music and dances. This approach draws upon a range of subjects, like geography, history, art and language, and this is in line with how traditional knowledge is transmitted in the village. After the project work was finished, the results were presented in text and drawings.

Drawing

In one classroom in Xingu, the teacher was very keen on drawing. He used this method extensively to teach the children, and this was often the point of departure for further studies. He and his pupils had done investigations regarding the natural resources in their local community, and this had resulted in a colourful map of animal life, rivers, lakes and mountains for everyone to consult and admire.

The extensive use of drawing is a striking feature of the teaching. Based on their own experience and on close studies, the children produce detailed and colourful drawings of animal life, plants and trees and their natural surroundings. It is essential for them to know about these things, so that they can recognize edible, medical and poisonous plants, observe animals and their behaviour, and learn how to preserve their natural resources.

The children are taught to observe and remember. Drawings help them in this, and their perceptiveness regarding characteristic details is impressive. They also make drawings and texts about customs and spiritual events. This method is actively used as a way of teaching the children to read and write.

In the Baniwa as well in the Coripaco Pamáali school in Rio Negro, drawings are used extensively as a way to learn about something that has been observed, or to learn how to organize ideas and concept and present a map. For example, pupils systematically investigated rivers and igarapés (waterways navigable by canoe) in the school region and made drawings of them at different times during the year in order to observe environmental changes according to the seasons.

Practical lessons

Teaching and learning take place also outside the school building, as can be seen from the following example from a village in Acre. Practical lessons in the field are organized at least twice a week. On the day we visited, the pupils were learning how to grow vegetables. They started by clearing and preparing a small plot of land in the village. Their regular teachers, other community members, traditional leaders, health agents and parents took part, working side by side with the children. Some of the older pupils were observed in the field writing a summary of the event in their notebooks. After lunch, they gathered in the maloka for group discussions, writing, drawing and presentation of their experiences.

Self-made books and education material

In all four projects, books and other learning materials are produced, based on the teachers' and pupils' own investigations. Most of this material is



Drawings of animals of the rainforest, Xingu, 2004. Photo: Eva M. Johannessen.

produced during teacher training sessions. The books are written in the local languages (some in both a local language and Portuguese) and may have stories about the origins of the people, history, customs, indigenous languages, medical plants, body-painting and handicrafts, music and poems, stories and ethno-mathematics,³ to mention a few topics. The production of books is a collective work carried out by teachers and other members of the community. In some of the projects, pupils also use the same textbooks as in the mainstream, non-indigenous schools.

In the evaluation of the Yanomami project, the following summary was made of some of the advantages of locally produced books and material:

- It ensures that the knowledge produced and transmitted is locally based, relevant and interdisciplinary
- It stimulates the creativity and pedagogical methods of the local teachers
- It motivates and stimulates active

participation on the part of the learners

- It makes the learning enjoyable and fun
- It serves as a way of documenting the development of the project
- It facilitates communication between local and non-indigenous teachers, as well as between local knowledge and non-indigenous knowledge.

It seems to me that the most important thing about the production of such books is the process of making them and then having a result to be proud of. How widespread the actual use of these books in teaching is has not been documented.

Intercultural education

Intercultural education takes place when the children learn about other countries, languages and cultures. Some schools are also intercultural in that they have pupils from different indigenous groups with different languages. The non-indigenous trainers and advisers in the projects are important transmitters of knowledge from the world outside the indigenous

³ Ethno-mathematics is based on indigenous ways of understanding and using mathematical concepts.



Connecting drawings of birds, plants and human physical attributions with the written words in the Yanomami language, 2006.
Photo: Torkjell Leira / RFN

territories. Textbooks on history and geography are also used. In this context, libraries are essential. Some projects have succeeded in establishing comprehensive libraries with dictionaries, educational materials, encyclopaedias, photo books, geographical atlases, etc. In some of the projects computers are available, and the Internet is used to search for information about other countries and modern technology and science.⁴ Learning through investigation allows a dialogue between traditional and non-indigenous knowledge. A genuine intercultural education makes investigations of traditional science as well as

modern science and draws comparisons between the two. The Baniwa school is currently finalizing a comprehensive Atlas Baniwa based on local field studies, drawing upon knowledge from the modern world on how to analyse and present the findings.

Evaluation

Evaluation of the pupils is essential in order to guide them in the learning process. But this is a sensitive issue. It often means competition: moreover, this way of ranking individual performance is not in line with cultural patterns in all societies. Nor will it necessarily motivate

low-scoring children to better performance, unless they are also given more specific advice. Traditional Western evaluation tends to be synonymous with tests on narrowly defined items of knowledge at a specific time. The test results may be important for a child's future in the educational system outside the indigenous territories. As there are few other models of evaluations, indigenous schools may copy this basically alien way of evaluating children's school performance.

Regular evaluations of pupils are mentioned in the national school

legislation, but such national tests and exams are particularly ill-suited to the indigenous education system. In the four projects, various ways of evaluating the pupils have been tried out. In the Tuyuka and Baniwa schools, it is emphasized that the parents should be provided with evaluations of how their children are doing in school, as well as seeing to it that the school itself is constantly being evaluated. This will help to prepare the indigenous community for taking over the administration of the school, and secure its pedagogical as well as its financial and administrative autonomy.

An overall concern expressed by teachers is that the children should not be divided on the basis of their academic results, thus creating a wider gap between those who are more advanced and those who are lagging behind in school. There is also scepticism to tests, as they focus on rote learning. The teacher should guide the pupils gently, always seeking not to discourage or intimidate them, and ready to correct them at the right moment.

Process evaluation

The teachers undertake a process evaluation observing a pupil's profile, development, attitude and behaviour inside and outside the classroom. It is important to recognize each individual child's own way of working, and evaluate him or her with this in mind, rather than comparing the pupils with each other. Pupils are evaluated not only according to academic performance, but also in terms of practical skills and traditional knowledge. It is possible to make brief evaluations every now and then, to find out what the children have learned. For instance, the teacher may write on the blackboard and ask the pupils to read these texts. If they are not able to do this, that is an indication to the teacher to improve his or his teaching. In addition to daily observations, some teachers say they also arrange formal tests in various subjects every second month.⁵

In Rio Negro, the criteria for pupil evaluation stress qualitative descriptions over quantitative measures (formal marks) and the importance of involving the local community and their organizations in verifying the children's educational results, as well as evaluating the teacher's work and the school's political-pedagogical plan.⁶ It is specifically underlined that children should be encouraged to work together in order to gain new knowledge.

The criteria used to evaluate the pupils in the Pamáali school (Baniwa and Coripaco) in Rio Negro are specific and clearly indicate the academic achievements expected of the children each year. A special module has been developed for those who need additional support.

The Tuyuka school has developed an archive of each pupil's products, drawing, texts and collective work. The teacher evaluates the children regularly, not on the basis of tests, but on various types of work handed in over time. In Xingu, they use an individual fixed evaluation sheet that the teacher has to complete every three months. The questions are few and simple, focusing on what the children have learned in the various subjects, what difficulties each child has had, and how the child has participated in the classroom. Examples of each pupil's work are to be attached to the evaluation sheet.

Evaluating literacy

When the evaluation of the Yanomami project was carried out, the degree of literacy was defined according to a set of criteria that categorized pupils into four different levels: 'pre-syllabic', 'syllabic', 'syllabic-literate' and 'literate'. This had been adopted from the non-indigenous school system in Brazil, and was not at all suitable for use in an indigenous society. The non-indigenous teachers found that the criteria were not exact and needed further interpretation.

Criteria were applied differently from one teacher to another. They had therefore developed their own definition of literacy, as follows: 'in addition we consider a person literate when he/she is able to express clearly an idea in writing and when s/he is able to understand clearly another person's writing'. This shows that a definition based on their own experience of the social use of literacy is more useful than a technical definition.

In Xingu, literacy development was divided into four stages, and a child's level was evaluated before he or she could pass on to the next stage. A requirement introduced by the state education authorities was to include personal documents, like written individual evaluation and the educational history of each pupil. This might be necessary in large urban schools, but not in a village school, and is another example of how indigenous education is influenced by mainstream society. The evaluation of the Xingu project concluded that the pupil's academic results were weak, since they spent three or four years in the first stage, learning to read and write. Some of the teachers claimed that the results in terms of how many pupils succeeded after ten years were very disappointing.

This may be due to poor teaching methods and low teacher qualifications, as some teachers were more successful than others. It may also be related to conflicts between village life and formal schooling, which would indicate that it is necessary to pay more attention to strengthening the community school.

In Rio Negro, the evaluation concluded that the pupils' academic results were good, and that this was due to the quality of the teaching and teachers, but also to the close and supportive contact between the local community and the school.

⁴ Today Escola Páamila even has a blog

⁵ Caderno de reflexao do professor indigena. OPIAC/CPI Acre. 2005.

⁶ The political-pedagogical plan is further explained in chapter 8.

Teacher education and the teacher's role

Since the beginning of all the projects, educating and training teachers has been a major priority. Formal schooling based on the wishes of the indigenous people needs to be carried out by people who speak the local languages, live in the villages and know the culture. It used to be the task of knowledgeable elders and parents to teach the children. When schools were introduced, it became necessary to appoint teachers. This was new and unfamiliar to the community. How should these people be selected?

Selecting teachers

In most cases there were few, if any, literate people in the villages, making it impossible to choose candidates on basis of their skills in reading and writing. The existing hierarchy was based on quite different criteria. And so, it became the members of the community who decided who should become a teacher. That had to be a person who was trusted and respected, but further criteria could vary from one project to another. As yet, there has been no systematic research on the selection of teachers and the role of the community in this respect. This is a pertinent issue, as some of the challenges that arose (which we will return to later) have been related to the teacher's role and position in the local community.

Many of the teachers are young, and they receive a regular salary. These two factors have tremendous effects on the traditional indigenous society.

Teacher education

Teaching and teacher education have been parallel activities since the beginning. The teachers got a basic introduction, started to teach and develop the schools, and continued to participate in courses in specific subjects and teaching methods. Non-indigenous advisers and teacher trainers

provided this education and training.

How the education of teachers has been organized varies from one project to another. In Xingu, teachers from 14 different tribes were gathered for five to six weeks. In Acre, they come together during summer holidays for further courses. In the provincial capital Rio Branco in Acre, the nongovernmental organization *Commisao Pro-Indio Acre* has succeeded in buying land and constructing a Centre of Education for indigenous teachers where seminars and trainings are held. In Upper Rio Negro, teachers from various communities gather for further training during summer and winter holidays.

A common characteristic of this form of teacher education is its participatory character. The teachers are not passive recipients but actively take part in the learning process. They become involved in investigations into their history and culture. In Acre and Xingu, the teachers are encouraged to reflect upon the teaching in their class diaries and to engage in other types of writing. The project focuses on helping the local teachers to become writers and owners of their own history.

In Upper Rio Negro, some teacher education workshops also involve other members of the community, in collective events that strengthen the ties between the school and the community.

Teacher education is mostly organized by subject, as it is elsewhere in Brazil. However, some of the four projects also use an interdisciplinary approach.

Follow-up

Follow-up is another important part of the training. Non-indigenous trainers and advisers travel regularly to schools and give

seminars, upgrading and advice to teachers and the community. This is an essential part of the teacher education, ensuring that theoretical knowledge is transformed into practical teaching. Advisory visits also allow inspection of how the school is functioning. The ambulant advisers prepared detailed written reports, describing how the schools are administered and the status of the teaching and the teacher. These visits have an important evaluation function, and have uncovered cases of teachers with long absences and non-functioning of schools. Regular follow-up of teachers in the field has not been recognized and accepted by the state authorities as an essential part of the teacher education in all the projects. Local nongovernmental organizations have carried out the follow-up visits, which have been financed by the international community.

Informal training of teachers

The traditional education between generations is also visible in the informal training of teachers. In Acre, the local teachers in Sao Joaquim village would often refer to a more experienced colleague as a mentor. 'I was trained by him' was a common statement, meaning that the colleague had taken responsibility for supporting the novice. Such informal training of new teachers was also common in Xingu. In the Yanomami territory, the schools spread to other villages through teachers who had only a brief training (*multiplicadores*) and were guided by more experienced colleagues. Interestingly, in the Pamaali School in Rio Negro, the coordination exercised among the teachers did not involve hierarchical authority, which breaks somewhat with traditional patterns in which the chief or religious leader exercises vertical authority.

Teacher qualifications

In many states of Brazil there are possibil-



Graduate student Erivaldo during the first graduation ceremony at the Pamaali school in Rio Negro, 2004.

Photo: Jan Thomas H. Odegard / RFN



Indigenous teachers during teacher training course in Acre, 2003. Photo: CPI-Acre.

ities for the indigenous teachers to move on to higher education and even to the university.¹ The autonomy of each individual teacher is guaranteed as each follows his/her own pace. It may therefore take several years before a teacher has received the education deemed necessary. But the majority of them do not continue to higher levels, and their formal qualifications may be poor compared to traditional academic requirements in regular teacher education.

The indigenous teachers are involved in the development of an education founded on a different knowledge base and with a different aim than in non-indigenous territories. That means that teacher education has to be differentiated and intercultural in terms of content and methods, and must be allowed to develop according to lessons learnt and experience gained.

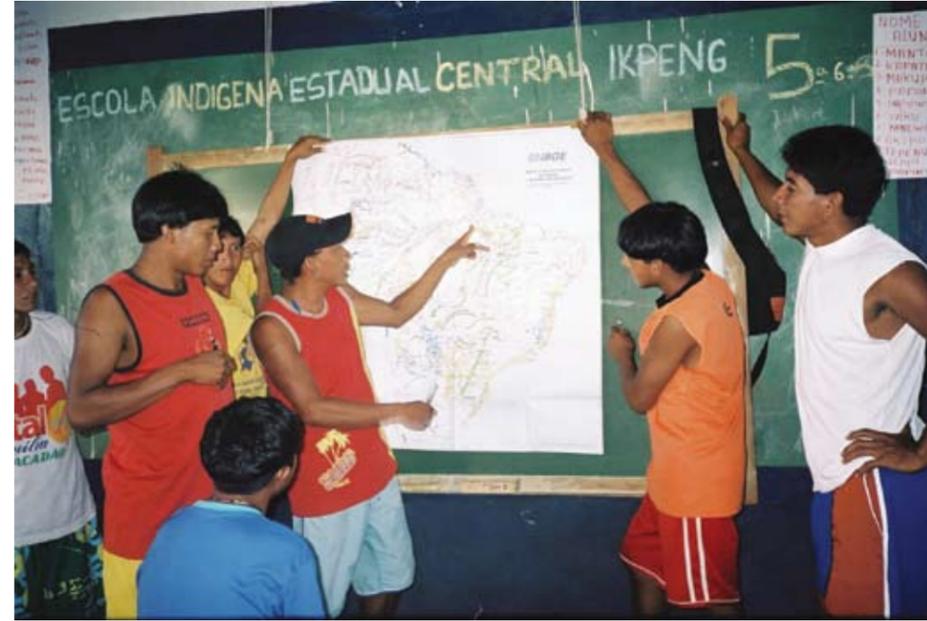
Teacher education in the four projects has not been guided by traditional theories and pedagogical principles but has developed gradually according to the experience gained. The over-arching has been to build an education that can strengthen the

indigenous people's language and culture, and respect their autonomy.

Mediators between past and present

The teacher's role in the indigenous school differs from that of a teacher in other schools. The teacher is not seen as the only expert in transmitting knowledge to the younger generation. He or she knows the modern world of reading and writing, while other 'teachers' (parents, other relatives and leaders) in the village provide instruction in practical life skills, history and traditions. These new teachers have an important role as mediators between the past and the present, but they are not traditional leaders in the village hierarchy and may therefore not be recognized as authorities.

On the other hand, the teacher can serve as an educator to the community when, for instance, h/she introduces them to the non-indigenous world but also is able to warn them against becoming dependent on products from outside. An example from Acre shows the importance of this attitude. The educational authorities



Workshop on identity for teachers and teenagers in the Pavuru village, Xingu, 2005. Photo: Rosana Gasparini / ISA

had begun to offer the standardized school lunch to the indigenous pupils and provided tins of biscuits and other food items, as they did to non-indigenous schools. The indigenous people were not familiar with this type of food; moreover, the tins represented a waste problem. The local people managed to reverse this negative development and started instead to prepare their own traditional food for the pupils, receiving compensation from the municipal authorities.

Through their knowledge of the non-indigenous world, the teachers can help the people understand how to protect and preserve their natural resources for future generations. As one teacher in Acre reflects upon differences between life in the city and in the village: 'In many big cities there are millions of people who are dying of hunger although they know how to read and write. Acquiring written language is not enough to solve this problem.'²

Teachers in the community setting

The teachers are first and foremost members of the local community. They have to

respect the traditions, and are expected to take part in cultivation, harvesting and cultural events. In some of the projects, the older members of the community complained that the younger teachers did not respect village life and did not take part in it. On the other hand there are also examples of communities that do not fully accept the teacher's work and do not understand that a teacher also needs time to participate in training and prepare the lessons. However, some of the more mature and well-trained teachers have become recognized as leaders and as mediators between the old and the new world. They act as important role models in the communities. They are familiar with the life in the city and can speak Portuguese. Still they value the way of life in the indigenous territories and have decided to stay there.

The community is supposed to control the teachers and evaluate their performance. Here the main concern seems to be that they come regularly and behave well. Most members of the community are not able to judge the teachers' academic and pedagogical qualities, only their behaviour and



Teacher and students during class in Trumai village in Xingu, 2004. Photo: Eva M. Johannessen

personality as a community member and a model to young people.

Female teachers

The large majority of the teachers are men. In most of the projects there are also more male pupils than female. Work in the indigenous villages is divided by gender, and being a teacher has been defined as suitable for men. This traditional division of labour does not mean, however, that the women are without a voice and do not have power in the communities. Their work is closely linked to their role as mothers and wives. A female teacher needs to get acceptance from the village chiefs to take up a position as a teacher, and she needs the approval of her father and her husband. She cannot simply abandon her other tasks in the family and in the community. Given the traditional hierarchy, it is even more difficult for a female teacher than for a male to be respected as a leader in the community.

When the Rio Negro project was evaluated, the gender balance was improving; indeed, the majority of teachers and advisors

in the Pamáali school (Baniwa and Coripaco) were women. This is a boarding school where the pupils do not live close to their home villages, because there are many small communities along the river, none of which big enough to host a school. Boys and girls share domestic chores and decision-making on an equal footing, within a context where there is a new concept of the family, as the teachers are viewed as parents. Interpersonal relations are developed within a climate of affection, respect and companionship. The team of indigenous teachers in the school is balanced in terms of gender. At the time of the evaluation there were four female teachers and four male ones, while the coordinator and two advisors were women.

In the four projects, the overall attitude is to respect the social organization of each group of indigenous people. In Rio Negro, for instance, a woman moves to her husband's village when she marries, and so a female teacher cannot marry and teach in her village of origin.

¹ Today more than 30 indigenous teachers in Brazil have been able to pursue further studies (at master and doctoral level) through scholarships from the Ford Foundation.

² Caderno de reflexao do professor indigena. OPIAC/CPI Acre. 2005



Teacher Anselmo during class in the Demini village in the Yanomami indigenous territory, 2006. Photo: Torkjell Leira / RFN

The school and the community

A close relationship with the community ensures that the school develops in accordance with local wishes and values. How much the community's influence on the school has been emphasized varies from one project to another.

School administration

The teacher is trained primarily to teach, not how to administer a school. On the other hand, many of the project schools are small and should be easy to administer. The most important aspect of the administration of the village schools relates to how the teacher and the community work together. It is the community's school, not that of the teacher or the municipality. It should be run and administered by the community, so that it can develop to the benefit of the villagers and their lives, today and in the future. To succeed in this respect has remained a serious challenge in several of the projects.

In Xingu, many community members complained that they did not really understand the role of the school and its teachers. The local people were more involved in their community life than in the school. The school was seen as the teacher's responsibility.

It is necessary to spend time explaining and working on the community's responsibility for running of the school. This has been successfully done in Rio Negro. The Tuyuka school has a local school association (AEITU) whose task is to administer and strengthen the links between the school, the teacher and the community.

The Pamáali school (Baniwa and Coripaco) has a similar arrangement with its local school council, ACEP. The school council is involved in discussing all matters related to the school and in making decisions regarding the content and administration of the school, as well guaranteeing its integration with the community.

Rainforest Foundation Norway (RFN) has signed a contract directly with the school associations in Rio Negro, giving them greater responsibility for the administration of the school's budget. The local nongovernmental organization, Instituto Socioambiental (ISA), is responsible for

capacity building of the school associations. In the Tuyuka villages, the community members were well oriented about the education that took place. The members of the community participated actively, visiting the classrooms, getting involved in developing local teaching materials at workshops, and discussing the contents and methods for lesson plans. In the Pamáali school there was an atmosphere of companionship and a feeling of responsibility and commitment to the communities, a sense of identity and belonging to the Baniwa-Coripaco people. Twice a year the school council meets with all the parents, community leaders and the pupils. During these meetings, which may last from three to four days, they discuss pedagogical and administrative issues and make important decisions.

Strong community commitment also has positive effects on the teacher's motivation for the job.

A challenge is to develop new ways of school administration with specific and different roles for teachers, principals, coordinators and municipal school secretaries, among others. This has to be reflected in the political-pedagogical plan, showing how the schools are innovative not only in terms of pedagogy but also with respect to administration.

Political-pedagogical plan

The national education legislation gives the schools both the right and the duty to develop their political-pedagogical plan (PPP). This is their own locally adapted curriculum and school management plan, ensuring that each school is run in accordance with the other laws and norms governing indigenous education. The schools are also to prepare their own school calendar, ensuring 200 compulsory school days per year, and adapted to local climatic and economic circumstances. There should be at least four hours of teaching on a regular school day; alternatively, the communities may decide on a more intensive schedule with more hours of teaching each day for six months

only, for instance. That is the case with the Pamáali boarding school. Such an arrangement allows the pupils to visit their home villages regularly and take part in activities there.

A PPP is meant to be developed in each school. It is more than a traditional curriculum defining subjects and requirements: it is also political, as it defines the languages of instruction and the yearly school calendar. A flexible school calendar means that the children can have time to do practical work in their communities, depending on the seasons and cultural events.

The PPP must be developed in cooperation with the local community: it cannot be decided by the teacher alone. In Xingu, impressive work had been done in this respect. The plan sees the Xingu indigenous territory (PIX) as a political unity, although it covers 14 different ethnic groups and languages. The schools have many cultural customs in common, but they are also different, and the school calendar varies from one place to another. The teacher in one of the schools, Kamaiura in the village of Ypawu, describes some challenges regarding the school calendar:

Nearly all months have celebrations, games, and fishing in the community. (...) The school is very new to us in the community. To present a school calendar we need a lot of discussion until the community understands. The school stops for one or two months when a person dies. The school has to respect this traditional custom. The village community does not decide on the celebrations but on the fishing, the planting and the harvesting (...) it is the chief who decides on the celebrations according to information he gets from the spirits; the family in mourning defines the order of the celebration. Whenever a person dies during a period of celebration, we have to stop. We are not allowed to play football, play with friends or listen to music during this time; we have to ask

the chief of the mourning when we can play again. (...) In the month of August there is a big celebration and everybody has to attend. The school is closed in this period.

This example from Xingu shows how complicated it can be to adapt the indigenous school to a regular academic curriculum and calendar. Community life and events do not proceed in a linear, regular way. This also helps to explain why it takes a long time to teach a child to read and write, and why it is not possible to impose a fixed calendar on the indigenous schools. In the community life described above there is not much time for regular classroom teaching, as there are many interruptions. On the other hand, teaching and learning do not stop simply because the school is closed – they go on continuously within the community. A rigid formal school calendar does not fit into the traditional rhythm of life in the community. Flexibility is essential.

Gradually, however, many indigenous communities are recognizing the formal school and adapting to it. This is the case in many villages in Acre, where school hours are quite regular and have been integrated into the life of the community.

The evaluation from Upper Rio Negro found the Pamáali school to be effectively directed toward strengthening Baniwa values and citizens. The political-pedagogical plan of this school stands out as a contrast to the aims of the municipal and missionary schools. The emphasis on training people oriented towards community work is coherent with the vision of sustainable development envisioned by the indigenous movement. This is clearly expressed in the organization of the school and its curricula, calendar and operations.

The PPP of the Pamáali School integrates the study areas around a shared core including languages, mathematics, culture and nature, arts and physical education. It also includes a second part

where practical knowledge is emphasized (environmental management, production and health). This provides a significant combination of theory and practice, knowing and doing. The methodology proposed in the PPP is centred on investigation, which allows people to articulate and enrich their knowledge of the oral traditions of indigenous culture with the discipline-based knowledge of written scientific tradition. This process of constructing knowledge brings together sources of ancestral and discipline-based ways of knowing and diverse methods, practices and forms of experimentation and investigation.

The first traditional dance performance in public for a generation! Performed by students during the first graduation ceremony at the Pamaali school in Rio Negro, 2004. The strong missionary presence had qualified these dances as diabolical, but systematic effort from the education project managed to change that conception.

Photo: Jan Thomas H. Odegard / RFN



Conclusions and lessons learned

This chapter will be devoted to a summary and analysis of major lessons learned, with some reflections on challenges for the future.

The overall goal of the indigenous school in these projects is to support the continuation and development of indigenous culture and life in the rainforest. To which extent has this goal been reached? What are the challenges – now, and in the future? There are both threats and opportunities regarding the development of these schools and their communities. The future of the schools depends on regional and national policies and economic development, as well as on school legislation and the teaching and learning in the schools.

The role of nongovernmental organisations and international cooperation

The development of a differentiated and culturally specific indigenous education is the result of close cooperation between indigenous leaders and non-indigenous Brazilians since the late 1970s. Their dedicated work and political pressure resulted in criticism of the school systems and education policies practised in Brazil, especially the missionary boarding system, and paved the way for an alternative school and education that could respect the pluralism of culture and languages. This group of people represent an 'expert team' of advisors to the Ministry of Education, which still exerts considerable influence on legislation and policy in matters of indigenous education. International cooperation and financial support have been crucial for the development of the pilot schools in the indigenous territories. It is now up to the government to develop these schools further. This is a new challenge for the state and the indigenous organizations alike.

Language and culture

The indigenous languages are carriers of

traditions, history and ways of thinking. Recognition of this fact has proven central in developing indigenous schools. Through the pilot projects, it has been possible to follow how the strengthening and revitalization of local languages has helped to foster a heightened sense of identity among the indigenous people, deepening their interest in their culture and traditions.

Another lesson learned is that it is necessary to strengthen the local languages by expanding their use in the schools. More texts and stories need to be written in the indigenous languages – also the class diaries, which are now written in Portuguese. Greater use of indigenous languages also defines the direction and ownership of the projects more clearly.

Bilingual/multilingual education

Respecting, valuing and developing a bilingual and multilingual context is crucial in promoting an indigenous education and culture. As yet, few in the communities are truly bilingual or multilingual. This is not only a technical skill, but requires in-depth cultural knowledge and understanding of the different languages. Such cultural knowledge must be based on a dual and well-integrated experience: knowledge of the world outside the indigenous territories together with pride in indigenous culture, languages and values. Some of the teachers who possess these qualities have been recognized as leaders in their communities and now serve as important models to the young people as well as to other members of the community.

The local community and the school

Community involvement in the school and its administration are essential to ensure

the future of these schools. Involving community members in various teaching activities and training has been shown to be an excellent way of integrating the formal school into the community at large.

Taking part in the administration of the school through school associations strengthens community ownership. Knowledge of the rights and obligations with respect to the school legislation increases. Through this work the community learns how to deal with municipal and state education authorities and to argue and negotiate for solutions promoting a diversified indigenous education. This is, in a broader sense, of utmost importance for the struggle for other rights as well.

Formal and informal education

Initially we raised the question of whether the establishment of formal schooling is necessary in indigenous territories. Institutionalized teaching and learning can be seen as a threat to the informal education and educators. The formal school may take over the responsibility for the family's education of their children. Is it necessary to invite older people to teach in the classroom and thus try to merge the two? Or is it better to separate formal and informal education? As yet we do not know and there may be several answers depending on the circumstances in each village. However, we have seen that greater contact between the community and the school and between formal and informal education appears to make members of the community more conscious of and engaged in developing their language, culture and traditions. It also helps the children understand that their role as pupils and community members are interrelated.



Young student in Rio Negro, 1998. The education project that started with funding from Operation Day's Work became the model for all the 200 primary schools in the municipality in 2007. Photo: Arild Hagen.

Non-indigenous society, the community and the school

Contact between the indigenous community and non-indigenous society is unavoidable – indeed, it is necessary for the survival of the indigenous school. The indigenous people need to know how to voice their opinions, to protect their rights in meetings with non-indigenous authorities and also to convey information about their lifestyle and their worries about the future. In Brazil, considerable ignorance remains regarding indigenous people and their ways of living. Even the state and municipal education authorities know little about what the indigenous people want and need.

Contact between the indigenous and non-indigenous worlds is also important for the pupils, as some of them may want to study in schools and universities outside

their territories, and work to defend their peoples' rights and future life in the rainforest.

The negative influence of mainstream society on the minorities is obvious not only in terms of exploitation of natural resources but also with respect to the devaluation and destruction of indigenous values and lifestyle. The term 'cultural stress-syndrome' has been used to describe the crises that many indigenous people experience when they move to urban areas or remain in contact with them. They find that their competence and skills are not in demand, are considered useless or are exploited. Moreover, many lack the education, skills, money and knowledge to succeed in the cities. The traditional rules and cultural customs of their own societies do not serve them in the modern

world, and they are caught in-between opposing ways of dealing with the challenges of life.

Most of the local indigenous schools provide schooling for the first four years of primary education, but provision of grades 5 to 9 is growing. This allows children to finish primary inside the indigenous territories and become better prepared, should they want to move on to secondary education. On the other hand, the academic requirements from the educational authorities become more rigorous at the higher levels. That threatens the flexible school calendar and the pupils' obligations towards their home communities.

Role of the teacher

The teacher's role as a mediator between the larger society and the local communi-



Schools in the Rainforest. Photo: Arne Nævra / Naturfoto

ty is challenging. The fact that teachers are salaried employees also implies obligations towards municipal and state authorities. Teachers are expected to follow rules and regulations regarding the school that may have a negative influence on or even threaten community life and indigenous education.

Together with health and environmental agents, teachers belong to a new social class who get paid for their work. Other community members who contribute to the development of the community are not remunerated in the same way. This may have negative effects on the community's hierarchy and power structures, which are founded on other criteria. It also affects the traditional relationship between generations, as the status and knowledge of the older people are chal-

lenged by the younger generation of formally educated teachers. On the other hand, the teachers need to comply with the traditional rules in their communities. They are expected to use their salary to the benefit of their extended family and to be generous with the money they receive.

In a small village school with only one teacher, the role and position of that teacher are vulnerable. Teachers are trained individually outside the community. Back in the village, there may be few or none with whom they can share their thoughts on teacher education, or the teaching. Creating networks of teachers and schools from neighbouring villages has proven effective in providing a support system for the individual teachers.¹ Formal advisory visits are also needed to

oversee how the school and the teacher are functioning.

Whether the teacher should be a man or a woman does not seem to be an issue in most of the villages. More female teachers may have a positive effect on the education of girls. Although there are very few female teachers today, there does not appear to be a general negative attitude towards appointing female teachers. It depends on each community and its leaders, and also on the women's own attitudes, and how teaching can be combined with being a spouse and a mother who still participates in the production of food for the extended family. The lessons learned regarding being a female teacher and the effect on the community of having female teachers should be further explored.

¹ This has been done in Rio Negro after the evaluation was carried out.

² Johannessen, E.M. (2006) Basic Education – also a question of quality.



Map of the natural resources around the Yudja village in Xingu, drawn by the teachers and students. Photo: Eva M. Johannessen

Teacher education

Continuous education and follow-up of teachers is necessary, from the beginning and onwards. The teachers in these four projects still require considerable training. Follow-up on the spot has to be arranged in an efficient and regular manner. It remains to be seen if and how the government will take full responsibility for this aspect of teacher education.

It takes time to develop an appropriate system of teacher education, since the contents, methods and ways of evaluation cannot simply be copied from non-indigenous academic institutions. It is a challenge to ensure that the teacher educa-

tion includes themes that are relevant for the present and future life of the local communities, and that it remains in close contact with indigenous values and ways of preparing children for adult life.

Teaching and learning

The qualities of the learning climate that distinguish indigenous education from non-indigenous schools need to be highlighted. This type of education is founded on core values based on respect for the autonomy of each child, and the right to be different. The children's autonomy is respected when they are allowed to work at their own pace, and continue until they have finished. This way of working

fosters deep concentration and a love for learning.

Another basic value is to look at each individual pupil according to his or her capacity, potential and behaviour in different settings: at school, at home and in the community. Theory is not valued over practical skills or personal behaviour. A third value is to teach the children that they are dependent on one another, and not exclude or discourage those who learn at a slower pace.

Regarding methods of instruction, it is a challenge to explore how to continue and develop drawing as a way of teaching and

learning in all subjects. Drawing is a way of communication that cuts across languages, as the children learn to observe and to express themselves.

Another lesson learned is that if the teaching takes the above-mentioned values into account and respects each child's autonomy, individual learning style and inclusion in the group, motivation for learning and concentration on the tasks seem to increase among the pupils. Disruptive behaviour in the classrooms has not been reported or observed.

Locally made books and education material

Material and books based on the teachers' and pupils' own investigations have proven to be an important contribution to the indigenous cultural knowledge base, to the active learning methods and ways of documenting the results. Moreover, the process of developing these materials has clearly increased the self-esteem of teacher and pupils alike.

It is a challenge to continue to develop such materials, as well as to gather information on how they are being used in the schools and how they can contribute to the documentation of the vast store of cultural indigenous knowledge.

Pupil evaluation

The way the pupils are evaluated must be in line with basic values of the community. It should be process oriented towards including academic and practical knowledge as well as the child's general behaviour. In this type of evaluation process,

also the parents may be consulted.

It is a challenge to defend and develop evaluation guidelines in accordance with indigenous values and not merely copy practices from non-indigenous schools. That said, it is also necessary to maintain an evaluation of the pupils' formal school achievements, so to enable the possibility of further education for those who so wish.

Cooperation with education authorities The success and continuation of indigenous education are highly dependent on cooperation with the municipal and state educational authorities. Among the lessons learned is that the project administration needs to spend time on lobbying, and on involving indigenous organisations and local politicians in this process.

Pilot projects

These four pilot projects have served as examples to the local education authorities on how to implement an indigenous school according to Ministry guidelines. What a diversified, bilingual, culturally specific and intercultural school means has been specified and made concrete. The results show that there is a diversity of schools within each project. A challenge in this respect is that such diversity may become too wide, at the expense of what they have in common.

The experiences gained over the years have been accumulated and are being shared and discussed in fora like RCA, Rede de Cooperação Alternativa, a network for all the nongovernmental organizations receiving support from RFN. An

effective network involving different nongovernmental organisations has the advantage of being able to spreading ideas and solutions to other schools and projects through its members.

In the literature on pilot projects there is an ongoing discussion regarding whether small and successful pilot projects should be up-scaled, or whether the success may be lost in the process. Some claim that the good results stem from the fact that such projects have been small and manageable.² The intention behind a pilot project is to try out something on a small scale before it is applied regionally or nationally. And indeed, there have been various disappointing examples of up-scaling, which should not come as a surprise to anyone. As a project grows, it changes, especially as it is applied by different people in new contexts and becomes more difficult to manage.

The pilot projects in this book have the advantage of the philosophy of diversification as a goal. Although there have been common experiences and lessons learned from the four projects and the many schools involved, it is neither possible nor advisable to proclaim The Right Way to be slavishly copied. The lessons learned may inspire and guide others.

Each community will have to start by defining the goals, values and wishes for education in the village in question. In that way, they may move on to define and prepare their own diversified, culturally specific, bilingual and intercultural school within their cultural context.

About the author:

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The Rainforest Foundation Norway »

Rainforest Foundation Norway advocates a rights-based approach to rainforest protection. We believe that the peoples who for generations have developed their cultures and societies in balanced interaction with the highly complex yet vulnerable ecosystems of the rainforest have fundamental rights to these areas.

Legal recognition of the collective territorial and cultural rights of forest-based peoples and communities is crucial to the fulfilment of their human rights. It is also a major prerequisite for protecting the rainforest.



Tropical forest:

- Present
- Original

» ECUADOR

» PERU

» BOLIVIA

» PARAGUAY

» BRAZIL

» DR CONGO

» MALAYSIA

» INDONESIA

» PAPUA
NEW GUINEA

The Amazon

Deforestation continues at a rapid rate in the Amazon. The human rights of indigenous peoples are regularly violated, and the last remaining groups of indigenous peoples living in voluntary isolation are now threatened with extinction.

Since 1989 Rainforest Foundation Norway has developed close partnerships with a broad network of local organizations throughout the Amazon, including many indigenous organizations. Together with these partners we run projects in bilingual education, management of indigenous territories and improvement of forest laws and indigenous peoples' rights.

Our experience has shown that the most effective way to protect the Amazon rainforest is by securing the territorial rights of its indigenous peoples. Rainforest Foundation Norway works to establish new indigenous territories and to protect existing ones. The strengthening of indigenous organizations is an important part of this activity.

In Peru we work to protect the right of isolated indigenous groups to maintain their traditional way of life and preserve their cultural integrity – which in turn means protecting the forests they inhabit. We also support the fight against exploitation of natural resources in indigenous territories.

Central Africa

Rainforest Foundation Norway works closely with environmental and indigenous organizations in the Democratic Republic of Congo to promote forest-dependent peoples' access and rights to land, and ensure sustainable, community-based management of the rainforest.

Rainforest Foundation Norway, in cooperation with Rainforest Foundation UK, supports advocacy work by local groups. This work seeks to achieve a policy shift – away from industrial logging as the cornerstone of national forest policy, promoted and financed by the World Bank, towards a policy that combats poverty through sustainable, rights-based forest management.

The Rainforest Foundation supports forest-dependent peoples in mapping their traditional forest uses in order to document their traditional rights and strengthen their advocacy work towards local authorities.

Our projects focus on areas where forest-dependent peoples are threatened by logging interests, by non-participatory conservation policies and by large-scale development projects.

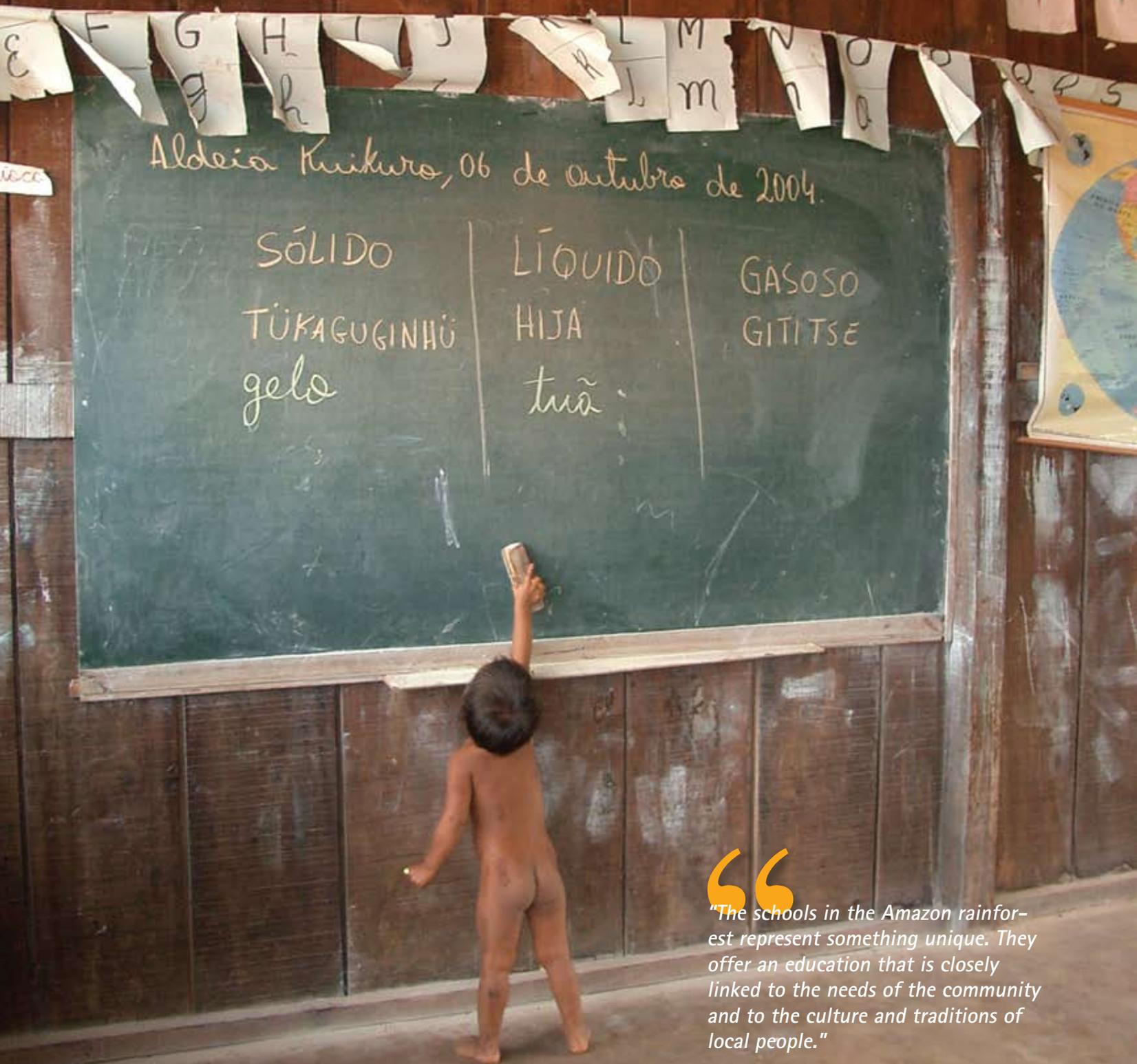
Southeast Asia and Oceania

Rainforest Foundation Norway started working in Southeast Asia and Oceania in 1997, and has since developed a range of projects together with local organizations. Our work focuses on sustainable forest management and securing land rights for forest-based peoples. In this work we join with dedicated organizations that maintain close relationships to communities in danger of losing their traditional lands and livelihoods if deforestation continues at the same rate as today.

Rainforest Foundation Norway supports legal action against logging companies and campaigns to introduce logging moratoria. We work to help forest peoples obtain exclusive user rights to their traditional lands. Through capacity building, alternative education, para-legal training and by supporting traditional expressions of culture, Rainforest Foundation Norway seeks to strengthen the role of forest peoples in protecting their home territories against destruction.

www.rainforest.no

*"SOLIDS – LIQUIDS – GASES". Studying the physical elements in Portuguese and the Kuikuro indigenous language in Xingu, 2004.
Photo: Eva M. Johannesen.*



“The schools in the Amazon rainforest represent something unique. They offer an education that is closely linked to the needs of the community and to the culture and traditions of local people.”