

# Evaluation of SAIH's Support for FADCANIC's Wawashang Environmental and Agroforestry Educational Centre

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# Executive Summary

The Fundación para la Autonomía y el Desarrollo de la Costa Atlántica de Nicaragua (FADCANIC) has established and is running the Environmental and Agroforestry Education Centre (CEAA) at Wawashang, in Nicaragua's South Atlantic Autonomous Region (RAAS). This activity has been fully funded by the Norwegian Students' and Academics' International Assistance Fund (SAIH) since the start in 2004. FADCANIC and SAIH agreed to have an evaluation of the first phase of this program (2004-2008) in early 2009, in order to assess progress and come up with recommendations for the second program phase (2009-12).

Fieldwork took place between February 23<sup>rd</sup> and March 7<sup>th</sup>. In addition to a few interviews in Managua, most of it took place in different localities of RAAS – Bluefields, Wawashang, Pueblo Nuevo, Kahka Creek, Laguna de Perlas, Haulover, and Orinoco. It included interviews with students, teachers and other staff of the Agroforestry School; other FADCANIC staff; parents of students, local leaders, ex-students and other people of the students' communities; and representatives of different government institutions.

## Findings

FADCANIC's creation of the Wawashang Environmental and Agroforestry Educational Centre is a highly *relevant* intervention for addressing a number of dimensions of the complex situation in the RAAS. It improves the educational situation of the region, offers concrete skills of direct use to its graduates, may help resolve some of the difficulties faced by the region's small farmers, and may contribute to reducing deforestation through the introduction of more environmentally sustainable agroforestry techniques. This latter impact, however, will only be achieved in conjunction with other interventions. FADCANIC's agroforestry project is an important element in this context. It is possible, however, that there is a need to further strengthen support to marketing and commercialization of agroforestry products within the overall FADCANIC 'package'. Finally, by bringing together students from all ethnic groups, the project should also be of relevance for the development of a truly intercultural Atlantic Coast.

In terms of *outputs*, the project has largely been successful in achieving the immediate project goals. The necessary school infrastructure has been established, and a well-organized system for running the school has been put in place. Furthermore, FADCANIC has been suc-

successful in developing an innovative educational model based on learning by doing and combining theoretical and practical subjects and ways of teaching. The close cooperation with FADCANIC's Agroforestry Project means that significant synergies are achieved. Furthermore, the School has been successful in attracting a mix of students from all ethnicities, and has been able to produce two graduated classes on time, even if they are somewhat reduced compared to the original optimistic plans. Finally, the School has achieved general recognition, and is highly respected for its achievements, relevance and quality by government institutions of the educational sector.

When it comes to *impacts at the individual level*, the project has been successful in empowering the students in many ways. They have acquired a substantial amount of practical and technical knowledge that is directly applicable in farm work and different types of employment. To prove this, they have received the diploma of *Técnico Básico Rural*, and a significant proportion of the graduated students have found relevant employment. Alongside the practical knowledge, students have also acquired a solid academic base that compares well with students from ordinary schools. Together with the work discipline that has been developed, and the strong desire to continue their education, these students are in an excellent position to develop their future careers. Moreover, they have acquired strong environmentalist attitudes, as well as a facility for presenting and explaining agroforestry techniques, thus enabling them to become change agents for the region. Finally, they have experienced living and working together with people from other ethnic groups, which has given them new intercultural skills.

It is still too early to see substantial *impacts at higher levels*. There are examples of new farming techniques being adopted in the communities because of the work of the students, but such impacts are still quite weak. This, however, is natural given the short history of the school and the large time scale necessary for such processes to take hold. Nevertheless, there is every reason to expect that in the long term, the School will have an impact on production methods in the villages. At the regional level, there has been an impact in terms of improving the situation of secondary education, particularly with respect to technical education. It also seems highly likely that this will reduce the out-migration of the region's trained people. When it comes to halting deforestation and changing the model of natural resource exploitation at the regional level, this is again something that will need a longer time scale.

The project must be considered highly *sustainable* in the environmental and institutional dimensions. In terms of economic sustainabil-

ity, there is some distance to go before the planned self-sufficiency in food is achieved. FADCANIC is taking measures to help realize this goal. Over-all economic sustainability cannot and should not be an objective. The School will continue to be dependent on outside funding. In the long run, the only realistic option is for this to come from the state. In the intermediate term, it might be possible to achieve that some of the running costs – for instance teacher salaries – are covered by the Ministry of Education. There are, however, dangers that an increased state influence over the running of the School may lead to the deterioration of the quality of the services provided.

### **Recommendations**

1. FADCANIC should work to bring down the number of drop-outs, in particular during the first school year. This includes exploring the possibilities of greater individual attention to students who require this, special support to students who do not have Spanish as their first language, considering whether it is possible and useful to give the students a bit more time for relaxation, improving means for communicating with the family, and considering whether it might be useful to raise the minimum age of students.
2. FADCANIC should continue its work to raise the number of female students. Promotional work in the communities to raise the overall number of applications should be a prioritized strategy. It might also be useful to send the female sports teams to events outside Wawashang in a more systematic manner.
3. FADCANIC should seek to improve the quality of teaching even further by: seeking to reduce the turnover among teachers; reduce the overall workload and responsibility of the teachers through hiring additional teachers and/or other types of staff such as inspector and librarian; give teachers added pedagogical training; and, if possible, seek to employ new teachers with knowledge of Indian languages.
4. FADCANIC should continue to strive for self-sufficiency in food production. This could involve increasing areas under cultivation, combating theft from the fields and plantations, and utilizing the food produced more efficiently.
5. If possible within the overall budget constraints, FADCANIC should seek to carry out its plans of expanding the School to also offer the fourth and eventually the fifth year of the secondary education cycle.
6. FADCANIC should seek to position the School so that the likelihood increases of the state assuming some of the costs in the future. This could involve closer cooperation with other institutions of the Ministry of Education, for instance the second-

dary school in Orinoco, or the planned new INATEC school in Laguna de Perlas. A challenge would be to ensure that state funding does not lead to the deterioration of the quality of the education offered.

7. FADCANIC should continuously strive to deepen the cooperation between the School and the Agroforestry Project, in order to increase synergies and reduce the potential for misunderstandings and tensions to arise. It should also be considered whether the overall package promoted by both institutions should be expanded to give greater attention to issues of commercialization – for instance through training, promoting joint marketing organizations, or developing specific products that are more easily transported from remote areas. It is also worth considering whether closer links and cooperation should be established with other actors – state, private or non-governmental – that promote development in the region.
8. Up to now, FADCANIC has managed to keep track on what its graduates are doing. As the number of graduates, and the time since many of the graduated, increase with each year, it will become increasingly difficult to keep such tabs on the former students. However, to the extent that this is cost-effective, FADCANIC should seek to systematize a way of maintaining an overview of the careers of at least a good number of its graduates. This is an extremely useful way of monitoring the impacts of the program, and may possibly also yield information relevant for its improvement.

# 1. Introduction

The Fundación para la Autonomía y el Desarrollo de la Costa Atlántica de Nicaragua (FADCANIC) has established and is running the Environmental and Agroforestry Education Centre (CEAA) at Wawashang, in Nicaragua's South Atlantic Autonomous Region (RAAS). This activity has been fully funded by the Norwegian Students' and Academics' International Assistance Fund (SAIH) since the start in 2004. FADCANIC and SAIH agreed to have an evaluation of the first phase of this program (2004-2008) in early 2009, in order to assess progress and come up with recommendations for the second program phase (2009-12).

The Terms of Reference for the evaluation were comprehensive. The evaluator was asked to look at the relevance of the project, the efficiency and effectiveness of the implementation of the program, its impacts, and issues of sustainability. Moreover, particular attention should be paid to the dimensions of gender and interculturality. In addition, the synergy and coordination with the activities of authorities and other actors should be assessed, as should the added value of SAIH into the project process. (See Appendix 1 for the complete Terms of Reference in Spanish.)

Axel Borchgrevink, of the Norwegian Institute of International Affairs, was commissioned to do the study. Fieldwork took place between February 23<sup>rd</sup> and March 7<sup>th</sup>. In addition to a few interviews in Managua, most of it took place in different localities of RAAS – Bluefields, Wawashang, Pueblo Nuevo, Kahka Creek, Laguna de Perlas, Haulover, and Orinoco. It included interviews with students, teachers and other staff of the Agroforestry School (and of the Norad-funded Agroforestry Project, localized together with the School at Wawashang); other FADCANIC staff; parents of students, local leaders, ex-students and other people of the students' communities; and representatives of different government institutions. (See Appendix 2 for a list of people and institutions interviewed.) A preliminary presentation of findings was made during a workshop at the Wawashang Centre at the end of the fieldwork period, with the presence of staff and students of the school, as well as representatives of FADCANIC and of SAIH. This workshop also served to receive comments on and discuss the preliminary findings.

One limitation related to this procedure is that due to the costly and time-consuming nature of the water-based transportation in the region, only a limited sample of communities could be visited, all belonging

to the municipality of Laguna de Perlas. This means that the sample cannot be said to be representative, either geographically or in terms of ethnicity. The communities visited were predominantly *Mestizo*, Creole or Garifuna. Furthermore, as SAIH communication with FADCANIC over project design and decisions have not been directly investigated, opportunities for assessing SAIH value added are likewise limited.

## 2. Background

FADCANIC was established in 1990, with the objective of contributing to the strengthening of the autonomy process and the general development on the Atlantic Coast of Nicaragua. Two main focus areas for FADCANIC have been education and sustainable development through agroforestry. Both themes are brought together in the Environmental and Agroforestry Educational Centre. This agroforestry school was established in 2004, with the objectives of improving the educational situation, improving the livelihood of small-scale farming families, and contributing to a more environmentally sustainable development process in the region.

SAIH is a solidarity and development organization of Norwegian students and academics. SAIH's objective is to contribute in such a manner that as many people as possible may obtain an education on their own terms and that marginalised groups get to influence their own situation and their society. SAIH cooperates with local organisations and educational institutions in Latin America and Southern Africa under the slogan «Education for Liberation». The organization has been involved with development cooperation with the Nicaraguan Atlantic Coast since the early 1980s. Since 1997, it has been cooperating with FADCANIC, initially with support to the organization's teacher training programs. It has been supporting the Wawashang School since its inception.

### **The School**

The Environmental and Agroforestry Educational Centre is a secondary school, approved by the Nicaraguan Ministry of Education, and by INATEC, the institution which oversees technical training and education in Nicaragua. It is a boarding school, recruiting students from all over the region, seeking students from poor backgrounds and a balanced mix of the various ethnic groups of the Atlantic Coast. The school has explicit objectives of providing an education that creates environmentalist attitudes among its students and promotes understanding and respect between the ethnic groups. There is a strong emphasis on learning by doing and on combining theoretical and practical knowledge. Up to now, the school has offered a three-year course, covering the first part of the secondary educational cycle. Students complete the requirements of the first three years of the normal secondary school, giving them the opportunity to continue in a regular school for the fourth and fifth year. In addition, the practical agroforestry training they have received means that they get a special techni-

cal diploma – as *Técnico Básico Rural* – which gives them additional employment possibilities.

FADCANIC has had a wider program for promoting environmentally sustainable agroforestry techniques in the region, with Norad and the Norwegian Embassy as a main funder. A key element of this program has been the Agroforestry Centre established at Wawashang. This includes extensive plantations of tree species, in particular coconut, cacao and other fruit trees. Linked to the program is the nearby ecological reserve of Kahka Creek, also established by FADCANIC. By locating the Agroforestry School at Wawashang, it is able to draw on the resources of these facilities. At the same time, the School cultivates its own areas, serving both for the training of students and for the production of foodstuffs needed at the school. There is an objective of becoming self-sufficient in food.

As students come from all over the region, often from small communities where the quality of primary education is low, FADCANIC arranges an initial ‘levelling course’. This course of around a month ensures that all students have completed the sixth grade elementary curriculum, and a final exam is included. In order to become a student at the Agroforestry School, this exam must be passed. In addition of ensuring the necessary qualifications of students, this levelling course also provides the opportunity for inhabitants of the region to complete their elementary education.

The school program is fairly intensive. Students start with an hour of practical work - in the farm area, kitchen, hauling water or firewood, feeding animals, etc. – in the early morning. After breakfast, there is the morning session of classes, up to lunch. Thereafter there is the afternoon session of classes, and then dinner. After dinner, there are two hours of supervised homework, and then it is close to bedtime. There are classes also on Saturday, up to midday. Once a week, students have a field day, working in the agricultural or agroforestry areas.

The school year is divided into three blocks. In between, the students go home for a couple of weeks (longer for the break between years). In this period, the students have practical homework projects to do on their family farm. (A requirement for being accepted as student is that the family should have some farmland, or that the student should have access to a piece of land where the practical projects can be realized.) These may include the production of biofertilizer, the planting of tree species or the trying out of other sustainable and organic agricultural techniques. In this way, the project seeks to spread knowledge of the sustainable agriculture and agroforestry in the villages. To the extent possible, students are given supervision in their communities. Fur-

thermore, they will make presentations of their experiences when they get back to the school.

The first class of students started in 2005, and graduated in 2007. While the first year started with 40 students, the number of students have gone up year for year, both because new classes were added in 2006 and 2007, and because the number of first-year students have been expanded (to compensate for expected drop-outs). Furthermore, from 2009, education is also provided for a group of 38 adults of the area: employees of the Agroforestry Centre as well as local farmers, who receive classes once a week. Together with the 131 regular students, the school is now serving a total of 169 persons.

FADCANIC is hoping to expand the school program with a fourth and a fifth year, starting with the fourth year in 2010. Furthermore, there are also ideas of diversifying career options, by also offering the possibility of specializing in carpentry. This would draw on the existing experience of producing furniture, and an expanded carpentry workshop is under construction.



## 3. Findings

### 3.1 Relevance

The RAAS (along with its northern neighbour, the RAAN) is a marginalized part of Nicaragua. Among the various dimensions of marginalization, several are of particular relevance in the present context. On the one hand, the educational sector is deficient, in particular related to secondary and tertiary education. Moreover, since most intermediary and superior educational institutions are located outside the region, and since graduates from these institutions (whether they are located within the region or not) also have greater chances of obtaining relevant employment in other parts of the country, there is a tendency for those who achieved an education beyond primary school to migrate to the Pacific side of Nicaragua. Thus, the educational level remains low.

On the other hand, due to its historic marginalization, the Atlantic Coast still retains relatively large areas of primary forest. Currently, however, this forest is under intense pressure, due among other things to the advance of the agricultural frontier, as poor farmers from the Western part of the country migrate to the region in search of new lands. This is doubly unfortunate, as the agricultural techniques they bring from the drier areas are unsuited to the ecological conditions of the rainforests of Caribbean Nicaragua. The practices of burning off existing vegetation when clearing land, planting annual crops in open fields, and the high priority given to opening up pastures for cattle, all serve to leave the land unprotected to the region's strong rains, and the thin layer of fertile topsoil with high organic content is consequently rapidly depleted through erosion.

These processes are strengthened by the relative poverty and lack of alternative income sources in the region. In the rural, interior areas, agriculture and animal husbandry are virtually the only options, while in the coastal areas, where fisheries traditionally have been of greater importance, catches are going down, making people more dependent on the land.

The Agroforestry School seeks to address all of these problems, through creating an educational facility that offers relevant and practical occupational training, which simultaneously serves to promote more environmentally sustainable forms of production in the region as well as to improve the general quality of living of the producer.

In terms of providing an alternative model of production and resource management, the fundamental idea is to promote a form of agriculture where the use of perennial tree species is of central importance. This brings several benefits. On the one hand it contributes to retaining forest cover and protecting the soil. And on the other hand, the various tree products – fruits, nuts, and spices, as well as various forms of lumber – improve farmers' livelihood both in terms of a broader subsistence base and in increased cash income from commercialization. In this sense, the school offers a highly relevant alternative for developing the region and its use of its natural resources.

Changing the overall developmental model and pattern of resource exploitation in the region is of course an immense challenge. It is not something the school project can bring about on its own – of importance is thus the way in which it links up with other initiatives. Here FADCANIC's Agroforestry Project is an important complementary activity. This involves different components: The training of small farmers from different communities as agroforestry promoters; using the agroforestry centre facilities for experimentation and validation of species, varieties and techniques, for seed production and as a gene bank; providing credit to producers wishing to take part in the program; and developing 'local agendas' which contain local plans for development, resource use, and watershed protection. As this project promotes the same techniques and crops as the School, and as it works in many of the communities where the students come from, there should be important synergies between these two interventions.

Still, it is possible to question whether the package offered is comprehensive enough to really promote a fundamental change in the logic of production of all participating farmers. It was observed that a farmer nearby Wawashang, who had participated eagerly in the agroforestry program, planting a large amount of fruit and other trees (and who also had a son studying at the School), nevertheless used the coconut and cacao and other forest products only for own consumption. Thus, his diet had improved, but cash income continued to be derived mainly from his cattle. The alternative of marketing coconuts and other tree products was rejected due to the perceived costliness of transporting them to the Pearl Lagoon or Bluefields markets. If the program is to fundamentally change the logic of production, there may therefore be a need for additional program components, to facilitate market access (and perhaps, for remote communities, to develop products of high value compared to bulk/weight, in order to reduce the importance of transport costs), as well as to train farmers in the commercialization of the new tree products.

Following the question further, one might ask how the School (and other FADCANIC activities aimed at promoting agroforestry) is linked to the interventions of other development actors. Unfortunately, the evaluator has not been able to investigate other relevant efforts in the region, or whether synergies could be achieved through closer coordination with them. Possibly, there may not be many other relevant activities to link up with. However, in order to ensure maximum impact of the program at a regional level, it might be worthwhile to seek to interest government agencies in the developmental model underlying the FADCANIC agroforestry programs. In this respect, the workshop organized at Wawashang for more than a hundred representatives of different state institutions in the region, and where participants afterwards expressed being highly impressed with FADCANIC's work, may have been a useful start that should perhaps be followed up.

Because of the FADCANIC School's focus on locally adapted agroforestry techniques, it can be said to be unique among agricultural schools in Nicaragua in that it teaches techniques that are explicitly adapted to the ecosystems of Caribbean Nicaragua. Students trained here are therefore well equipped for practicing in the region. Thus, also as an educational facility, the Agroforestry School is highly relevant for the regional context.

Moreover, the fact that the School fulfils all requirements of the Ministry of Education and of the technical education authority INATEC – in terms of curricula, teachers and their qualifications, materials, etc. – means that even if the school is private, it is integrated into the public educational system. This ensures that students' diplomas and certificates are accepted everywhere, and that the School does not function as an isolated island.

A particular characteristic of the Atlantic Coast is its ethnic composition. Even though the Spanish-speaking *mestizos* have recently become numerically dominant, the region continues to have a high proportion of its population belonging to different ethnic minorities, including a number of indigenous groups as well as English-speaking Creoles. This ethnic diversity is a resource in itself, but also poses challenges to educational institutions and to development processes. FADCANIC is highly conscious of this situation, and has made a number of efforts in order to recruit students from all ethnic groups, as well as to ensure that their different starting points and linguistic situations are taken into consideration. Furthermore, the School has an explicit objective of seeking to promote friendship, understanding and mutual respect between the students of different groups, thereby contributing to reducing the potential for tensions and conflicts in the re-

gion. Thus, also with respect to this dimension, the Agroforestry School is designed in a way that is highly relevant for the specific situation of the RAAS.

## **3.2 Results and Impacts**

### **Project outputs**

In most respects, the project has been successful in producing the planned outputs.

A well-functioning infrastructure has been constructed. This includes four classrooms, library, teachers' office, dormitories, kitchen and mess hall, various agricultural and horticultural plots, facilities for small livestock, and a sports area. It is not luxurious, but quite adequate, and appears to be well maintained. It is sufficient for the present student population, but if the School is to expand its program with a fourth (and eventually a fifth) year, then the infrastructure will also need to be expanded, at the very least, with further classrooms and dormitories.

Furthermore, a well-organized system for running the School has been developed. There are many dimensions to this system. It includes routines for the recruitment of students, the levelling course for ensuring required qualifications for entering the School, the development of curricula and teaching plans that combine the theoretical and technical areas, transport of students to the school and back to their communities again, organizing daily routines for classes as well as for other activities, giving classes and holding exams, facilitating the required textbooks and educational material, attending to all the practicalities of feeding, housing and caring for well over 100 young students, most of them a very long way from their homes and families, and a series of related issues. This is no small feat, and while there may be room for smaller or bigger improvements in most of these areas, FADCANIC and the school staff have succeeded in establishing a robust and fairly efficient and well-functioning system.

FADCANIC has also succeeded in developing an innovative educational and pedagogical program that is based on learning by doing and on combining theoretical and practical subjects. This integrated form of learning comprises both the combining of the regular secondary curriculum with the technical training in agroforestry, as well as the complementary use of classroom teaching and practice in the field. This is further reinforced by the practice the students get from implementing the techniques they learn in their parents' plots in their communities during the home periods. The school also promotes the stu-

students' ability to present and explain the different productive techniques employed.

Significant synergies with the Agroforestry Project have been achieved. The Project Centre, with its tree plantations and other resources, serve as excellent facilities for the students' practical training, and many of them have their final practice period at the Centre. Staff of the Project at times give classes or instructions to the students. At the same time, the students serve to reinforce the extension activities of the Project, as they implement agroforestry techniques in their family plots and explain them to interested neighbours. In this way, they complement the strategy of using agroforestry promoters, which, it is recognized by the Project staff, has its limitations, due for instance to the low educational level of many of the promoters. Furthermore, the school allows the project to make better use of the investments in the Centre as a training area. Due to transport costs and practical reasons, it is complicated to bring farmers to the Centre on a regular basis.

Moreover, the School has succeeded in attracting students from all ethnic groups. Table 1 shows the ethnic composition of the students. As one can see, the *mestizos* are the numerically dominant group, accounting for just about half the student population. This, however, is a reduction from the initial year, when the School encountered great difficulties in recruiting from the non-Spanish-speaking groups. FADCANIC has expressed the desire to see the percentage of *mestizos* go down even further, in order to have a more balanced ethnic composition. However, given the facts that *mestizos* today account for at least two thirds of the region's population, and that it is their forms of agricultural production that the project sees as particularly important to change, it can be argued that the present mix of students must be fairly close to the optimal.

**TABLE 1**  
**STUDENTS BY ETHNICITY AND YEAR (2009)**

	1 <sup>ST</sup> YEAR	2 <sup>ND</sup> YEAR	3 <sup>RD</sup> YEAR	TOTAL
Creole	13	5	6	24
Garifuna	3	0	2	5
Mayagna	17	2	0	19
Mestizo	25	28	11	64
Miskitu	3	6	2	11
Rama	0	2	0	2
Ulwa	4	1	1	6
TOTAL	65	44	22	131

Source: CEEA

Another important output is the fact that two classes have successfully graduated, in 2007 and in 2008. Given the difficulties encountered, such as the outbreaks of the so-called *grissy sickness* and the fear and uncertainty this created, having the classes graduate on time is no small achievement. As the number of graduates indicates – 15 and 20 respectively – there has however been a significant number of students that did not finish. While this is a problem that has been reduced over time, it still persists, and it will be further discussed in section 3.4.

Finally, an important result of the project is the recognition that the School has achieved. FADCANIC and the Agroforestry School have excellent reputations, and representatives of the Ministry of Education, different leaders at local, municipal and regional levels, and teachers at other educational establishments all agreed in expressing great respect for what has been achieved, and for the quality of the institution and the education provided.

### **Impacts at individual level**

Students are empowered in various ways through the education they receive at the Environmental and Agroforestry Educational Centre.

They acquire a substantial amount of practical, technical knowledge. Much of this is related to easily applicable agricultural, agroforestry and animal husbandry activities. However, it also relates to more advanced practices such as pollinization of hybrid coconut. School staff like to tell stories of how their students are able to show agroforestry students at university level how to do this, which they have only read about. It should also be emphasized that the techniques taught are environmentally sustainable and based on avoiding the use of purchased chemical inputs as far as possible – for instance through the use of organic fertilizers or pesticides. Furthermore, as was demonstrated during a visit to the family farm of two brothers who had not completed the course, even those who drop out may have learnt a substantial amount that they can put into practice, even if they do not have the papers to prove it.

As a tangible expression of this acquired knowledge, when graduating after three years, the students get the diploma of *Técnico Básico Rural*. This document is recognized by potential employers, and gives the graduates a clear advantage in a difficult labor market. At least 12 of the 35 students graduated so far have acquired employment, mostly in agricultural or forestry projects.

Furthermore, the students leave the Agroforestry School with a sound academic basis. As was expressed both by representatives of the Ministry of Education and by teachers of other secondary schools of the

region, students from the CEEA who continued with the fourth year in other schools are among the best students of their classes. Thus, in addition to gaining a significant amount of practical knowledge, the students also get their full share of the theoretical learning.

Moreover, the students learn how to present and explain the different techniques they learn to others. This is demonstrated (and taught) through the practice of having students show the frequent visitors to the centre around, and explaining to them the different practices they follow and the purposes they have. This is done on a rotational basis so that all students gain the experience. In this way, students acquire confidence in their knowledge and the facility to demonstrate and teach to other – an important ability if they are to serve as informal promoters or multipliers of their knowledge in their home communities.

The students are further inculcated with a clear appreciation of the importance of trees and on maintaining local ecological and hydrological balances. Thus, they come out of the school with strong environmental attitudes and convictions – quite important if they are to be key figures for implementing development initiatives in the communities of the region.

The school is based on a fairly intensive study program, and a precondition for learning as much as they do is surely that they acquire discipline and a work ethic. While this may be challenging for them at times, there is no doubt that this discipline and dedication will be useful for them in their future studies and working lives.

The hard work of following the school program has not scared them from seeking to study on. All students interviewed expressed their intention of continuing after the third year, many of them even to the university level. The strength of this desire is also borne out by the fact that of the 35 students who have graduated so far, 34 of them are continuing their studies, either full time, or part-time, alongside employment or farming.

Moreover, the experience of living three years in a multicultural environment such as the School implies other forms of learning. They learn about other groups, their customs and languages, and experience how differences and conflicts can be overcome. The resultant understandings, attitudes and abilities are of great value for living in a multicultural region, and to the extent that many of them may go on to become important change actors in their communities, municipalities and regions, it may also be of importance for the realization of a multiculturally empowered Caribbean Nicaragua.

### **Impacts at community level**

The intention of the project is that the students, through the work they do on their family farms during vacations and breaks, as well as after graduation, shall have an impact in their communities in terms of disseminating the sustainable agroforestry techniques. The homework activities students have to realize in the periods they are home are meant to strengthen such impacts.

There are indications that such impacts exist, but they do not appear to be very strong. Thus, there are some reported cases of less burning of fields among the parents of some students. Some plants – fruit trees, coconuts, pineapple, and others - have also been planted. Many, however, have not survived, and those that do have only a minimal effect in terms of shifting overall production systems. Parents have also employed organic fertilizer, and have been happy with it, but in all cases encountered, they have ceased the practice when the fertilizer prepared by the offspring has been used up. There were also furthermore some anecdotal stories from students about neighbours having shown interest in their agroforestry practices, but nothing substantiated about these techniques actually being adopted. In sum, then, the impacts encountered at community level are, for the time being, quite limited. (It should be mentioned that only a limited sample of communities were visited, all of them in the municipality of Laguna de Perlas. Thus, both geographically and ethnically, the sample is not particularly representative. The possibility that impacts are greater elsewhere should therefore not be discarded, even though the evaluation did not come across any information indicating that this is actually the case.)

This limited impact should not be too surprising. After all students are only home for relatively brief periods during their studies, and not all parents are particularly willing to learn from their children. Furthermore, the experience shows that just about all graduated students continue studying, often in combination with paid employment. This, of course, limits their possibility for impacting on production methods in their family farms after they graduate. However, the fact that they continue to study must surely be counted a good thing. In a region where low educational levels imply problems both for the individual and for society, it should rather be seen as a positive achievement of the School that students are inspired to continue their studies.

The limited impact at the present point in time should not be cause for concern. It might indicate that project plans or SAIH expectations have been over-optimistic. However, realistically, as explained above, it is much too early to expect this kind of changes. The real impacts that the students will have in their communities – on agricultural production and on other development processes – are long-time processes

that will appear over the working lives of these students. There is every reason to expect that in the long run, such impacts will be significant.

### **Regional level impacts**

The regional educational situation has been improved through the establishment of an additional secondary school. According to the Human Development Report 2005 for Nicaragua, which focuses on the Atlantic Coast, the gross rate of secondary education in RAAS, at 27.38 %, is less than half the national average. Furthermore, the fact that the CEAA is a technical secondary school is significant here, as there is a very limited number of these in the region (as far as the evaluator is aware, there is only one in Bluefields and one in Rama, with a third planned for Laguna the Perlas). In addition, the program offered is unique in promoting a form of agricultural production that is specifically adapted to the ecological conditions of the region, thereby offering both good local employment possibilities for the graduates, as well as holding the promise of contributing to a more rational use of the natural resources of the region. Finally, the School implies a significant change at regional level through the fact that it gives priority to students from remote communities, and that it includes considerable measures to ensure that it is accessible to them. These include active promotion and recruiting in the communities, the levelling course to allow candidates to complete their primary education, as well as covering all costs related to travel, board and education. In sum, then, the School has had a significant impact both in terms of expanding the educational coverage, as well as in offering an innovative, relevant, different and high-quality type of education.

By offering a type of education of great relevance for the region, and with the best opportunities of gaining an employment actually existing locally, the School in all probability will also have its intended impact in terms of reducing the out-migration of qualified people.

The project also has the ambition of contributing to a change in the developmental model and the form of exploitation of natural resources in the region. However, as argued above, while there are good reasons to hope that the School – in conjunction with other efforts – will eventually have such an impact, it is clearly too early to expect such processes to be discernable at the present moment. Such changes are long term processes, and while important foundations may have been laid, they will not be realized in the short or even the medium term.

### 3.3 Sustainability

The term sustainability has different dimensions. The project's fundamental orientation is to contribute to *environmental sustainability*. It promotes productive methods that are aimed at a sustainable use of the region's natural resources, and that take into account the specific ecological conditions of the Atlantic Coast. These contrast greatly with the destructive practices that currently dominate among many farmers. Thus, if successful in promoting a change towards organic and agroforestry techniques, the project will have a significant impact in terms of generating a more environmentally sustainable natural resource use.

There is also the dimension of *institutional sustainability*, referring primarily to the organizational capacity and human resources necessary to carry on the activities. As an educational program, the Agroforestry School is directly creating improved human resources. In this sense, the knowledge imparted will live on in the graduated students and the activities they pursue throughout their working lives. Thus, at that level, the program must be considered highly sustainable. In terms of the continued functioning of the school, it has the capacity to run itself with a certain degree of follow-up from FADCANIC. This is not substantially different from the dependence of a public school on the institutional apparatus of the Ministry of Education. Thus the CEAA should be considered institutionally sustainable.

The dimension of *economic sustainability* is more complex. One of the objectives of the School is to be self-sufficient in terms of food. This has so far not been achieved. There are several aspects to this. Firstly, the potential for production can still be expanded. To some extent this is in process, as the tree plantations already established gradually come into production. In addition, it is reportedly also possible to extend the area under cultivation of corn, beans and other staples. Secondly, the School currently loses a considerable part of its production through theft from the fields. It should be considered whether it is possible to reduce this loss, through the employment of further guards or other measures. Thirdly, there is a potential for utilizing the foodstuffs produced more efficiently. FADCANIC has recognized that there is some wastage in the use of the available food, and has taken measures to improve the efficiency in this respect. In sum, then, there should be a considerable potential for reaching or at least greatly improving the Schools self-sufficiency in food.

In terms of the overall budget, it must be recognized that the School will never be self-sufficient. As mentioned, it may be able to cover the food needs through its own production. As food is the second largest item on the budget (after transport) this is not insignificant. Nevertheless, the school is not a business enterprise, and should not be ex-

pected to aim for economic independence. The only way to do this would be through school fees, an idea that would contradict completely the fundamental principle of seeking to reach poor students from remote communities. Thus, it must be recognized that the School will always be dependent on external funding.

This means that SAIH has acquired a responsibility that cannot be discarded lightly. Yet, SAIH cannot continue to fund the School forever. Thus, at some point there will be a need for other funding sources. In the opinion of the evaluator, FADCANIC ought to work to ensure some form of state support in the future. Clearly, this is not feasible in the short term, and might not be so in the medium term either. But in this respect, one should not think in terms of all or nothing, but rather in the form of a gradual assuming of costs, starting for instance by the Ministry of Education accepting to cover the costs of teacher salaries. While this is unrealistic at the moment, it should still be possible to work to position the School so that such an arrangement could be more likely in the future. One way of doing this would be by developing and deepening cooperative relations with different institutions of the Ministry of Education. One could for instance explore the potential for establishing forms of cooperation and exchange with the secondary school in relatively nearby Orinoco. Or, if the proposed technical secondary school in Laguna de Perlas materializes, CEAA should seek to develop forms of cooperation, division of labor, and ways of achieving synergies with this institution.

The Director of FADCANIC has expressed considerable reluctance towards pursuing such a strategy. This is based on a fundamental distrust of the state's capacity, ability and willingness to maintain the quality of its institutions. The Nicaraguan state and the regional authorities are weak, unstable and partisan. A different, innovative and high-quality school such as CEAA would be particularly vulnerable to deterioration through lack of flexibility, attention, support and funding after a state take-over. Yet it seems difficult to envision an alternative strategy for the long term. The dependence on one donor has obvious limits, and it also seems likely that it will be impossible to continue forever juggling different donors. Thus, perhaps the real challenge will be to develop forms of receiving state support while retaining FADCANIC's control over the decisions that are vital for ensuring the continuation of the high quality of the School.

### **3.4 Challenges**

#### **Reducing number of dropouts**

The achievements detailed above notwithstanding, there remain various challenges for the School. One of them relates to the number of

desertions, which continues to be quite high, even if measures have been taken to reduce the problem compared to the situation of the initial years of the School. Table 2 shows the number of drop-outs in the different classes during 2008.

**TABLE 2**  
**DROPOUTS DURING 2008**

	Students at start of year	Students at end of year	Students passed final exams*
1 <sup>st</sup> year	83	47	44
2 <sup>nd</sup> year	27	24	23
3 <sup>rd</sup> year	22	20	20
Total	132	91	87

Source: CEAA

\* Includes those who will have to repeat the exam in one or two subjects.

As the Table shows, of the initial number of 83 first year students, only 44 continued into the second year. This means that 39 students, or 47%, dropped out. For the 2<sup>nd</sup> and 3<sup>rd</sup> years, the number of drop-outs is considerably lower, averaging around 12%.

The reasons for not finishing may be different, and can include:

- difficulty in adapting to the school routines and homesickness
- expulsion due to disciplinary problems
- sickness
- marriage
- work
- failure to pass exams

As appears from Table 2, not passing the exam is not a dominant reason; it only applies to 4 out of 45 cases. For the other dropouts, there are no statistics to indicate the relative importance of the different grounds for leaving. However, it seems reasonable to assume that the first reason is the central one, in that it may be the underlying reason for all the others. In other words, if a student is unhappy being at the School, this can lead to indiscipline, health problems, difficulties in passing exams, or preferences for other options such as marriage or working. The fact that the overwhelming majority of dropouts take place during the first year – indeed mainly during the first part of the first year – is also a strong indication that failure to adjust to the school situation is the primary reason for leaving.

It should not be surprising that many students have difficulty in adapting to school life. It means leaving their families, usually for the first

time, to stay in an unfamiliar environment, often far away from one's community. Instead of living with a family, one has to live in a dormitory with hitherto unknown boys or girls, many of them who do not even speak your language. Furthermore, there is a rigorous regime where students are obliged to work hard with practical tasks, something that is quite unfamiliar to many of them. The strict regime also extends to the academic part, where requirements are considerable, and daily routines leave little time for recreation. The academic requirements will be even harder for those students who are not fluent in Spanish. School regulations and living together with people from other ethnic groups may also imply clashes with different cultural customs. For example, students with different habits of when to go to bed will need to adapt to each other, and the Mayagna find their traditional enjoyment of swimming in the river at all times drastically curtailed. The fact that many of the students are quite young, starting at 12 or 13 years, does not make this process of adjusting to school life less difficult. In sum, then, beginning at the Wawashang School at the start of the first school year is by necessity a considerable shock. A certain number of drop-outs during this phase is therefore to be expected. Furthermore, this should be understood in the context of Nicaragua, where the dropout rate for secondary schools at the national level is higher than the case in Wawashang. For the Atlantic Coast, figures are even higher. Still, it seems reasonable to think that it should be possible to bring the number further down from the current almost 50% during the first year.

FADCANIC has done quite a bit already to seek to address this problem. Firstly, to ensure that the dropouts do not negatively affect the number of students to graduate after three years, the intake for the first year has been increased. In 2008 and 2009, respectively 84 and 65 students were accepted for the first year. In this way, FADCANIC expects to reach its goal of having around 40 students graduate every year.

Furthermore, FADCANIC has also sought to lessen the shocks of adjusting to the School. Since 2008, the levelling course has been held at the Wawashang School (previously it was held in the students' home areas). In this way, students get a glimpse of what life at the School is like, and if they choose to enroll for the secondary classes, they know what to expect. Moreover, a psychologist is brought in at various times of the year (according to perceived needs), staying for several weeks at a time, and working with the students in groups as well as individually with those who appear to be unhappy or have difficulties in adapting.

Furthermore, FADCANIC has tried to address the language problem. While all teachers speak Spanish, and a number of them also English, a new teacher was hired last year who in addition speaks Miskitu. Furthermore, supporting classes in Spanish have been given to students in need of this, in part through the hiring of a separate qualified teacher for a limited period. Still, given the general too-large workload of teachers (see below) the capacity to respond to these needs is limited.

The considerable requirements regarding practical work on the farm as well as academic work have significant beneficial effects, in terms of learning as well as of acquiring work discipline. The School ought therefore to continue having high standards in this respect. Yet it is possible to ask whether the routines could be relaxed slightly, in order to give a bit more of breathing space for the students. It should be mentioned in this respect that the present director of the School has already reduced the school program since he assumed the leadership. Thus, students now start their work routine in the morning half an hour later than before, and the afternoon session ends 20 minutes earlier. In addition, the time of recess at midday has been expanded with 10 minutes, and Saturdays are now only half school days compared to the previous full day. Still, as mentioned, the amount of the students' time that is bound up with obligatory activities remains large.

One reason why the School has maintained such a tight schedule is in order to keep control of the students and avoid any disciplinary problems arising from 'too much' idleness. If the teachers' workload can be eased a bit through the hiring of an inspector who will assume the main responsibility for looking after the students outside of class, it could perhaps be possible to reduce the demands on students a bit further.

This also relates to another issue: meaningful activities for the spare time. The school has developed a highly popular sports program, with baseball, basketball and volleyball, and the required areas for practicing these. This is seen as very useful, allowing students the opportunity to burn off excess energy. Furthermore, for recreation the school has acquired a set of guitars, as well as different forms of table games. Moreover, different forms of parties and celebrations are often arranged during weekends, and these days there is also the opportunity to watch TV for some time during the night.

Another issue that might ease the adaptation to school life could be if there were better possibilities for communicating with their families. Previously it was possible to use the radio of the Centre for calling health stations in the different communities, and in this way speak with relatives according to prearranged schedules. Currently, however,

the radio is out of order, and this option is not available. Thus, repairing the radio would offer a quick fix to this problem. Furthermore, if there are feasible technical solutions for improving local cell phone coverage, or for utilizing the existing broadband via satellite phone, opportunities for communicating home would be further increased.

It is also possible to consider whether it would be useful to raise the minimum age for being admitted to the School. However, a first step would be to analyze dropout figures to find out whether it is really the case that the youngest students are more likely to drop out.

In sum, then, FADCANIC has done quite a bit to reduce the problems of adjusting to school life. At the same time, it is possible to do more, but most of these measures would require additional resources. It then becomes a matter of balancing the benefits of different ways of spending the resources available to the School – the total budget is after all fixed. I will not venture to make explicit recommendations here, but trust in the sound judgment of FADCANIC and the School leadership to find the best way of maximizing the use of the available resources.

### **Recruiting female students**

There is a FADCANIC and School objective of having at least 40% female students. It has proved difficult to reach this goal. As Table 3 shows, the figures for the different years show that girls make up around 25 % of the total student population.

**TABLE 3  
FEMALE STUDENTS**

	Total students	Female stu- dents	Percentage girls
First year	65	17	26 %
Second year	44	13	30 %
Third year	22	2	9 %
All current stu- dents	131	32	24 %
Graduates (2007+2008)	35	9	26 %

Source: CEEA

There are two main explanations that have been offered for the difficulty of recruiting girls: On the one hand, parents are reluctant to send their girls to a boarding school, outside their own control and supervision. And on the other hand, the specialization in agroforestry is not particularly attractive to girls.

If it is the case that the ratio of girls among applicants remains fairly stable at around 20-25%, then the simplest solution to this problem should be to continue to work to raise the number of applications. The number of applications for the School has gradually been increasing, and while very active recruitment was necessary for filling classes during the first years, there are currently more applications than can be accepted. This is due both to the fact that the school is gradually becoming known and gaining a reputation, as well as to the active promotion that FADCANIC has made to inform about and recruit for the school. Now, if for instance the number of applications were to reach 150-200, then it should be relatively easy to fill a first year class of 60-80 students with 40% qualified girls. To some extent, one can expect that this will happen more or less automatically, as more students graduate, and people become aware of the advantages the School provides in terms of study grants, quality education, usefulness of knowledge acquired and new employment and income possibilities. However to strengthen this process and ensure the outcome, FADCANIC should also continue its promotional activities. The recent innovation of sending students around to different communities to inform about the benefits of the School should also be continued – obviously including both boys and girls in these missions.

The School baseball team (male) has participated actively in different competitions within the municipality, and thus serves as a kind of ambassador for the school. Also the female volleyball team has taken part in competitions outside of the school. In order to make visible the active participation of girls in the School, and thereby seek to attract more female students, it might be worthwhile to send the female team to outside competitions in a more systematic manner.

One measure to attract more female students that has been suggested is to include new specializations, which might prove more attractive to girls. The one suggestion that always comes up is sewing classes. To some extent this might help raise the number of female applicants. However, if this would result in separate classes where men monopolize the agroforestry, while women focus on sewing, then this measure would reinforce existing gender stereotyping, and in this sense be a step in the wrong direction. I would therefore not recommend this policy.

### **Improving the quality of teaching**

The teachers at the Wawashang School do an admirable job and deserve to be praised for the responsibility they take, the work they put in, and the way they relate to the students. Still, there are limitations due to structural factors, which FADCANIC should seek to address.

There is a high turnover among the educational staff. Only three of seven teachers have been at the School for more than one and a half year. (When an additional teacher is recruited, the ratio will go down to three out of eight.) The CEAA has an innovative educational model which is different from all other schools in the country, with its own philosophy, teaching plans and methodology. In such a school, the costs, in terms of time and effort, of replacing teachers and inducting the new ones to the system are greater than in other institutions. The fact that it is a boarding school also means that there are additional tasks and responsibilities for new teachers to learn, and correspondingly longer time before they are up to speed. Thus, high turnover is a drain on resources and reduces efficiency.

The causes of the high turnover have not been investigated systematically, but there appears to be a combination of different motives involved. The school is located in a very remote place, where it is difficult for teachers to bring their family, and this implies some form of isolation and hardship. This, however, is unavoidable, and FADCANIC feels that this is compensated for by a good salary by Nicaraguan teaching standards. But another important problem that teachers face is the great work load and considerable responsibility placed on them. The school day is long also for teachers, starting with accompanying the students in the morning period of doing practical work at 6 am, continuing with long sessions of classes, and (on a rotational basis) ending with overseeing the students homework period. Moreover, the teachers are also responsible for overseeing the students during their spare time. The teachers see this as a considerable responsibility. The students are adolescents, a period for trying out limits of different kinds, and the teachers must in a sense stand in for their parents, ensuring that this does not have unwanted consequences, whether in the form of accidents, trying out drugs or alcohol, or pregnancies. The ratio of seven teachers to 131 students means that the challenges of maintaining control are considerable, and they mean that teachers to some extent are on the job every waking minute. To the extent that this burden can be relieved, it should go some way towards reducing the wear on teachers, and hopefully contribute to less rotation. Thus, both the plan for an extra teacher, as well as the proposed new positions of inspector and librarian, could be of substantial benefit for resolving this problem.

Another and related point is that not all teachers are pedagogically trained. All have considerable professional expertise, but some of those with a technical background in agroforestry or related disciplines do not have any specific training in teaching methods at all. This means that much of the teaching is based on own experiences from school, which were usually dominated by very traditional peda-

gogic methods, much based on dictation and one-way communication from teacher to students. While in general the teachers have established good relations with the students, the lack of a broader set of tools for a more active pedagogy is an obstacle for reaching all students, especially the more timid ones and those with language difficulties. Since FADCANIC has done so much to improve pedagogical standards in their other teacher courses, it is somewhat surprising that this aspect has not been given sufficient attention at Wawashang. Nevertheless, this is a challenge it should be possible to confront and do something about. The teachers themselves experience that they need better qualifications in teaching methodology, and are very interested in such training. For starters, it could be possible to draw on those teachers who do have pedagogical training. For instance, the school could have workshops among the teachers a couple of times a year, where specific difficulties or ways of teaching could be discussed, led by one of those with teacher training. Reducing the school day, by for instance 50% once a month, would give time for the teachers to meet (and at the same time, a little extra free time for the students). Having an inspector would make it easier for all the teachers to meet in this way, without having the obligation to look after the students at the same time. Furthermore, FADCANIC should consider whether it might be useful also to employ experts from outside the school for this kind of training. To the extent that better teaching skills and higher success in reaching and engaging all students give greater job satisfaction to the teachers, this might also serve to reduce the rotation of staff.

Finally, given the importance of language for learning, it would be an advantage with more teachers with knowledge of the different languages of the Coast. So far, Spanish and English are well covered, while there is one teacher who speaks Miskitu. More Miskitu-speaking teachers, as well as Mayagna-speakers, would be very welcome. However, knowing the difficulties of encountering such people, who in addition must possess the necessary qualifications for teaching at the secondary level, this must be more of wish than a recommendation.

### **Enhance synergies with Agroforestry Centre and Project**

While currently relations are collaborative and good between the School and the Project, there have been periods of tensions and dissatisfaction, where one part has tended to resent that the other is using 'their' resources. It is quite possible to imagine that new tensions could arise, for instance over students 'helping themselves' to fruits from the Project plantations. It is therefore useful to maintain a form of vigilance against such problems reappearing. When former tensions were overcome, this was done through having meetings emphasizing

the common goals, and establishing arenas for interaction. Moreover, the fact that currently there are former School staff working on the Project, and former Project employees working as teachers, helps to promote understanding. There are also some of the Project staff who at times give classes, while the Project receives support from the School through the project work of students. As it is important to maintain the good relations, ways to further and deepen cooperation should therefore continuously be sought.

### **Transport**

Any activity covering the area of RAAS face considerable challenges in terms of transport. It is an extensive region, with a dispersed population, and only a very limited road network. In order to reach most communities, boat transport is the primary means. Thus, getting around is time-consuming, and, most importantly, expensive. For the Agroforestry School, transport is one of the largest items on the budget. Moreover, steeply rising transport costs over the project period has forced an assessment of the pedagogic schedule. Originally, the students had three short returns home during the school year, which was brought down to two in order to reduce costs. It was even considered to reduce this to just one, but it was decided that against this as it would have too negative an impact on the educational model of combining the school training with practical application of techniques on the family farm.

There is little that FADCANIC can do with this problem. Necessary transport is organized in a cost-efficient manner, and it does not seem advisable to seek to reduce transport costs further. Consequently, the school will have to live with a high transport budget. This makes the cost of the School fairly high compared to the number of students graduated. Nevertheless, it cannot be taken as indicating inefficiencies that could be addressed. It is an unavoidable consequence of working with students from remote communities in a region with difficult transport conditions.

### **3.5 The SAIH – FADCANIC Relationship**

The Terms of Reference asks for an assessment of the value added of SAIH's engagement in the project, over and above the facilitation of the funding for the school project. To investigate this question in-depth would have involved a study of all communication between the two organizations, from the initial discussions over the possibility of supporting the program and continuing through the implementation period. While much could probably have been gleaned from the written communications and from SAIH travel reports, there should ideally also be access to the face-to-face discussions during project visits and phone conversations over the years. Discussions during project

visits are normally an important way for an active donor to have a real impact on designs and developments of programs. However, the fieldwork for this evaluation did not allow this kind of data collection. Moreover, the fact that the regular SAIH project coordinator went on pregnancy leave before the evaluation started further limited the possibility for collecting information on the value added question. Thus, I do not feel in a position to venture any clear conclusions in this respect.

However, a few things can be stated. SAIH should be characterized as a close, interested and active donor. While there have been several changes in SAIH project coordinators over the years, the organization has consistently managed to employ highly qualified people with interest, knowledge and understanding of Latin America, Nicaragua, and the Nicaraguan Atlantic Coast. Relatively frequent visits to the region and to the School mean that SAIH is well informed about local conditions, advances achieved as well as challenges to the project and the measures taken to overcome them. Moreover, throughout the history of SAIH engagement with the Nicaraguan Atlantic Coast, and more specifically, of directly supporting FADCANIC, there has been built a strong relation based on trust, confidence and mutual respect. This relationship appears to have allowed an open and free discussion of all aspects related to the implementation of the School project, including the difficulties and setbacks encountered.

The fact that SAIH on many of these visits also bring along representatives of their constituency – students and activists – serve to deepen these relations and create a broader network of solidarity between Norway and the Nicaraguan Atlantic Coast. This international contact and engagement can be considered a form of value added. Furthermore, SAIH has been an important contact between FADCANIC and the Norwegian NGO the Development Fund, in the process leading up to the recently established project cooperation between these two organizations. Moreover, SAIH has also brought representatives from their cooperating partners in Bolivia – also involved in agricultural training – to learn from the work of FADCANIC. Thus, through SAIH's engagement with FADCANIC, various spin-off benefits arise. It should also be mentioned that during visits, SAIH always meets with the Norwegian Embassy (the main funder of the Agroforestry Project) in order to ensure coordination and exchange of information.

## 4. Conclusions

FADCANIC's creation of the Wawashang Environmental and Agroforestry Educational Centre is a highly *relevant* intervention for addressing a number of dimensions of the complex situation in the RAAS. It improves the educational situation of the region, offers concrete skills of direct use to its graduates, may help resolve some of the difficulties faced by the region's small farmers, and may contribute to reducing deforestation through the introduction of more environmentally sustainable agroforestry techniques. This latter impact, however, will only be achieved in conjunction with other interventions. FADCANIC's agroforestry project is an important element in this context. It is possible, however, that there is a need to further strengthen support to marketing and commercialization of agroforestry products within the overall FADCANIC 'package'. Finally, by bringing together students from all ethnic groups, the project should also be of relevance for the development of a truly intercultural Atlantic Coast.

In terms of *outputs*, the project has largely been successful in achieving the immediate project goals. The necessary school infrastructure has been established, and a well-organized system for running the school has been put in place. Furthermore, FADCANIC has been successful in developing an innovative educational model based on learning by doing and combining theoretical and practical subjects and ways of teaching. The close cooperation with the Agroforestry Project means that significant synergies are achieved. Furthermore, the School has been successful in attracting a mix of students from all ethnicities, and has been able to produce two graduated classes on time, even if they are somewhat reduced compared to the original optimistic plans. Finally, the School has achieved general recognition, and is highly respected for its achievements, relevance and quality by government institutions of the educational sector.

When it comes to *impacts at the individual level*, the project has been successful in empowering the students in many ways. They have acquired a substantial amount of practical and technical knowledge that is directly applicable in farm work and different types of employment. To prove this, they have received the diploma of *Técnico Básico Rural*, and a significant proportion of the graduated students have already found relevant employment. Alongside the practical knowledge, students have also acquired a solid academic base that compares well with students of ordinary schools. Together with the work discipline that has been developed, and the strong desire to continue their educa-

tion, these students are in an excellent position to develop their future careers. Moreover, they have acquired strong environmentalist attitudes, as well as a facility for presenting and explaining agroforestry techniques, thus enabling them to become change agents for the region. Finally, they have experienced living and working together with people from other ethnic groups, thereby giving them considerable intercultural skills.

It is still quite early to see *impacts at higher levels*. There are examples of new farming techniques being adopted in the communities because of the work of the students, but such impacts are still quite weak. This, however, is natural given the short history of the school and the large time scale necessary for such processes to take hold. Nevertheless, there is every reason to expect that in the long term, the School will have an impact on production methods in the villages. At the regional level, there has been an impact in terms of improving the situation of secondary education, particularly with respect to technical education. It also seems highly likely that this will reduce the out-migration of the region's trained people. When it comes to halting deforestation and changing the model of natural resource exploitation at the regional level, this is again something that will need a longer time scale to achieve.

The project must be considered highly *sustainable* in environmental and institutional term. In terms of economic sustainability, there is some distance to go before the planned self-sufficiency in food is achieved. FADCANIC is taking measures to help realize this goal. Over-all economic sustainability cannot and should not be an objective. The School will continue to be dependent on outside funding. In the long run, the only realistic option is for this to come from the state. In the intermediate term, it might be possible to achieve that some of the running costs – for instance teacher salaries – are covered by the Ministry of Education. There are, however, dangers that an increased state influence over the running of the School may lead to the deterioration of the quality of the services provided.

In spite of its considerable achievements, the CEAA School still faces some *challenges*. A key challenge is how to reduce the number of students who drop out before graduating. The number is particularly high during the first year, due to the difficulties of adjusting to the demanding and different school environment. FADCANIC has tried to lessen the shock this implies in a number of ways, thereby bringing down the number of dropouts somewhat. Nevertheless, it should still be possible to reduce this number further. Moreover, the School has not achieved its goal of recruiting 40% girls. The easiest solution to this problem is probably to raise the number of applicants, and prioritizing girls dur-

ing the intake selection process. While the number of applicants is probably going to rise automatically as the School is becoming more widely known, FADCANIC also needs to keep up its promotion of the educational opportunity it represents. Finally, there are challenges related to the quality of teaching. FADCANIC should work to bring down the turnover among teaching staff, perhaps primarily by reducing their work load. Moreover, there is a need to strengthen the pedagogic capacity of the teachers, and if possible, to get more teachers with knowledge of the different Indian languages.

FADCANIC's plan of expanding the School with a fourth and a fifth year to cover the whole secondary education cycle should be welcomed. This extension is eagerly awaited by the students and ex-students (among the latter, there are those who have continued studying the fourth year in an ordinary school who express their willingness to repeat this year in order to benefit from the quality education of the CEAA). It will serve to extend and deepen the positive impact of the program.

FADCANIC is likewise proposing to diversify the vocational training by offering an alternative to agroforestry, namely 'woodworking, cabinet-making and carpentry'. This is undoubtedly a useful type of training for the students, while at the same time having the potential of developing local capacity for processing the region's raw materials (in stead of unsustainably exporting unprocessed resources). However, I have not discussed the plan or its consequences with FADCANIC in detail, and do not know how this proposal would affect the existing agroforestry program (same number of total students at the School, with fewer learning agroforestry, or new students coming in addition to the existing agroforestry classes, or some form of integration where students learn both). For this reason, I feel unable to give any recommendation of whether to proceed with this proposal.



## 5. Recommendations

1. FADCANIC should work to bring down the number of drop-outs, in particular during the first school year. This includes exploring the possibilities of greater individual attention to students who require this, special support to students who do not have Spanish as their first language, considering whether it is possible and useful to give the students a bit more time for relaxation, improving means for communicating with the family, and considering whether it might be useful to raise the minimum age of students.
2. FADCANIC should continue its work to raise the number of female students. Promotional work in the communities to raise the overall number of applications should be a prioritized strategy. It might also be useful to send the female sports teams to events outside Wawashang in a more systematic manner.
3. FADCANIC should seek to improve the quality of teaching even further by: seeking to reduce the turnover among teachers; reduce the overall workload and responsibility of the teachers through hiring additional teachers and/or other types of staff such as inspector and librarian; give teachers added pedagogical training; and, if possible, seek to employ new teachers with knowledge of Indian languages.
4. FADCANIC should continue to strive for self-sufficiency in food production. This could involve increasing areas under cultivation, combating theft from the fields and plantations, and utilizing the food produced more efficiently.
5. If possible within the overall budget constraints, FADCANIC should seek to carry out its plans of expanding the School to also offer the fourth and eventually the fifth year of the secondary education cycle.
6. FADCANIC should seek to position the School so that the likelihood of the state assuming some of the costs increases. This could involve closer cooperation with other institutions of the Ministry of Education, for instance the secondary school in Orinoco, or the planned new INATEC school in Laguna de Perlas. A challenge would be to ensure that state funding does not lead to the deterioration of the quality of the education offered.
7. FADCANIC should continuously strive to deepen the cooperation between the School and the Agroforestry Project, in order to increase synergies and reduce the potential for misunder-

standings and tensions to arise. It should also be considered whether the overall package promoted by both institutions should be expanded to give greater attention to issues of commercialization – for instance through training, promoting joint marketing organizations, or developing specific products that are more easily transported from remote areas. It is also worth considering whether closer links and cooperation should be established with other actors – state, private or non-governmental – that promote development in the region.

8. Up to now, FADCANIC has managed to keep track on what its graduates are doing. As the number of graduates increases with each year, as will the time since many of them graduated, it will become increasingly difficult to keep such tabs on the former students. However, to the extent that this is cost-effective, FADCANIC should seek to systematize a way of maintaining an overview of the careers of at least a good number of its graduates. This is an extremely useful way of monitoring the impacts of the program, and may possibly also yield information relevant for its improvement.

# Appendix 1. Terms of Reference

## TERMINOS DE REFERENCIA

### CONTRATACIÓN DE CONSULTORIA PARA **LA EVALUACIÓN EXTERNA DEL PROYECTO CENTRO DE EDUCACIÓN AMBIENTAL Y AGROFORESTAL – WAWASHANG-RAAS.**

#### **1. INTRODUCCIÓN.**

La Fundación para la Autonomía y el Desarrollo de la Costa Atlántica de Nicaragua (FADCANIC) ejecuta en la Región Autónoma del Atlántico Sur (RAAS) el proyecto denominado “**Centro de Educación Ambiental y Agroforestal – Wawashang en la RAAS**”, en coordinación con el Instituto Nacional de Tecnología, INATEC, El Ministerio de Educación Cultura y Deporte de la RAAS y bajo el auspicio de la Agencia de Cooperación Noruega (SAIH).

El Proyecto **Centro de Educación Ambiental y Agroforestal – Wawashang**, se inició en Enero del año 2004. Ese año fue de organización e implementación, durante el cual se llevó a cabo la compra de materiales, mobiliarios y la construcción de la infraestructura necesaria para la apertura del centro técnico en Wawashang, municipio de Laguna de Perlas.

En el año I y II del proyecto (2004 Y 2005) se impartieron los cursos de nivelación, que es uno de los componentes del proyecto cuyo propósito principal es: apoyar a los jóvenes en las comunidades de la RAAS, que por problemas de diferente índole no han podido concluir su primaria, a graduarse de sexto grado de primaria y así poder tener la oportunidad de continuar sus estudios en el Centro Técnico Agroforestal u optar por otra carrera en otro centro de estudios.

A partir del mes de Enero del 2005, el proyecto continuó con la fase organizativa y de desarrollo para la apertura del ciclo académico del 2005 en el centro Técnico, considerada de mucha importancia en esta región por ser el primer Centro Técnico a nivel vocacional con la especialidad en Agroforestería y medio ambiente, donde los estudiantes al concluir sus estudios saldrán con la visión y los conocimientos necesarios para trabajar la tierra

con un mejor manejo de los recursos naturales sin contaminar el medio ambiente.

*El fondo de asistencia internacional de los estudiantes y académicos noruegos (SAIH), es la organización de solidaridad y cooperación internacional de estudiantes y académicos en Noruega. Con el lema "Educación para la liberación", SAIH quiere contribuir a la liberación económica, política, civil, social y cultural en el Sur, y fortalecer la solidaridad internacional entre estudiantes y académicos en Noruega y en países en el Sur. SAIH apoya a proyectos educativos en Bolivia, Nicaragua, Sudáfrica, Zambia y Zimbabwe, y realiza campañas informativas en Noruega. En el 2008 SAIH elaboró " la Estrategia para la educación para el desarrollo 2008-2012" para guiar las actividades de la organización en el presente cuatrienio. También se ha elaborado una estrategia para Nicaragua del mismo periodo y un programa que abarca toda la cooperación de SAIH en Nicaragua del período comprendido por 2009-12.*

*SAIH ha tenido presencia en la Costa Caribe de Nicaragua desde los años 80, con cooperación con contrapartes locales desde el año 1997. La cooperación con FADCANIC se inició en este mismo año apoyando la educación de maestros empíricos. Desde el 2004 SAIH y FADCANIC inicia la cooperación del proyecto **Centro de Educación Ambiental y Agroforestal – Wawashang.***

## **2. PRESENTACION DEL PROYECTO**

### Cobertura territorial

El proyecto tiene su incidencia actualmente en los municipios de: Kukra Hill, Laguna de Perlas, La Cruz de Río Grande, La Desembocadura, El Tortuguero, Bluefields, Bonanza

### Objetivo general

Crear capacidades locales que permitan impulsar y sostener programas de desarrollo comunitario con énfasis en el desarrollo de alternativas de producción sostenibles y coherentes con las Agendas Locales de manejo de los Recursos Naturales<sup>1</sup>

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<sup>1</sup> Desde la solicitud 2009-12 se ha reformulado el objetivo de la segunda fase del proyecto y se han ligado a explícitamente a la reforma educativa de las regiones autónomas (SERA). Los objetivos específicos ahora son:

- a) Desarrollar procesos de formación técnica y de liderazgo para jóvenes rurales (hombres y mujeres) de la RAAS, a través de los distintos programas educativos del Centro de Educación Técnica Ambiental y Agroforestal de Wawashang-RAAS (CETAE).

Misión del Centro de Educación Ambiental y Agroforestal :

Formar jóvenes de procedencia rural de la R.A.A.S mediante un proceso educativo de calidad, integral y equitativo conforme el principio de aprender haciendo a través del cual se desarrollarán los talentos del arte de combinar la agricultura con la conservación de los Recursos Naturales en un ambiente de cooperación y solidaridad con los actores del entorno.

Visión del Centro de Educación Ambiental y Agroforestal:

Construir un Modelo Educativo de excelencia para el Desarrollo Rural Sostenible de la Costa Atlántica, formando mujeres y hombres líderes en el Fortalecimiento del Patrimonio Natural y de la Equidad Social en el contexto del Régimen de Autonomía.

Este modelo tiene que tener la capacidad para poder enfrentarse al reto de las nuevas necesidades del desarrollo humano y en especial como escuela formadora de valores positivos hacia la conservación del medio ambiente y métodos sostenibles de producción. Este reto fue la clave para la formulación del Proyecto, creando un nuevo modelo de técnico básico con enfoque en medio ambiente y agroforestería aun no existente en el resto del país. Este reto pionero tenía que acompañarse de un nuevo diseño curricular, completando y ligando los contenidos tradicionales de la educación secundaria con la formación profesional en aspectos medioambientales y agroforestales y con ejes transversales de género, multiétnicidad y respecto ante diversidad cultural.

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- b) *Promover en las parcelas y suelos del proyecto, las prácticas productivas agrícolas, ganaderas y agroforestales necesarias para producir los alimentos básicos para los estudiantes y utilizar los excedentes productivos para la generación de ingresos del CETAE.*
  - c) *Capacitar a los estudiantes y profesores del CETAE en temas diversos para crearles capacidades, habilidades y destrezas en materia de liderazgo, derechos sexuales y reproductivos (incluye VIH-Sida), género, resolución de conflictos, derechos autónomos, derechos indígenas, medio ambiente y cambios climáticos.*
  - d) *Desarrollar acciones para fortalecer la estrategia del CETAE relacionadas con la futura sostenibilidad del proyecto y el establecimiento de un modelo de educación técnico-vocacional orientada a la diversificación técnica, al incremento productivo de las fincas familiares como modelos de unidades productivas rurales en armonía y equilibrio con el medio ambiente y los recursos naturales de la RAAS.*
  - e) *Implementar acciones estratégicas orientadas a la evaluación de los resultados de las acciones realizadas, a difundir el impacto del proyecto y al control y seguimiento del cumplimiento de los planes operativos.*

### 3. JUSTIFICACIÓN DE LA EVALUACION

FADCANIC y SAIH han consensuado la realización de una evaluación Externa, con la finalidad de conocer, interpretar y analizar la situación e impacto del proyecto durante el período de ejecución de actividades correspondientes al período desde 2004-2008 y para obtener recomendaciones para la implementación de la segunda fase del proyecto (2009-12).

Después de 4 años de trabajo para crear educación relevante e innovadora, para el desarrollo sostenible, capacidades de liderazgo en los jóvenes y cambios en las comunidades y también por estar iniciándose un nuevo periodo de cooperación basado en una nueva estrategia y programa de SAIH, FADCANIC y SAIH ahora necesita información y recomendaciones acerca de:

1. La relevancia de la formación técnico-profesional y *humano* acerca y el impacto a nivel individual y de comunidad de los procesos de enseñanza-aprendizaje, metodologías, de medios didácticos y audiovisuales, aspectos culturales y socioeconómicos de los grupos meta atendidos por el Programa *sus capacidades de liderazgo y interculturalidad y la inclusión de la perspectiva de género en el proyecto; sus capacidades de liderazgo, interculturalidad relacionado con el contexto local y regional y en relación a la estrategia de SAIH.*
2. *La inclusión de la perspectiva de género y interculturalidad en el proyecto*
3. La organización administrativa del Programa ,el resultado de la productividad de los distintos componentes que integran el Programa, el costo-beneficio y las posibilidades de la sostenibilidad económica del programa.
4. Sinergias y coordinación del proyecto con planes, autoridades y entidades<sup>2</sup> en la región tanto cómo la relación de contrapartes y el valor agregado de SAIH

### 4. OBJETIVOS DE LA EVALUACIÓN EXTERNA.

- Interpretar, analizar y evaluar la situación actual del Proyecto **“Centro de Educación Ambiental y Agroforestal – Wawashang en la RAAS** en términos de gestión y contenido y

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2 Como por ejemplo proyecto de biodiversidad entre FADCANIC y la Embajada Noruega, INATEC, MÉCD, autoridades locales/regionales, SEAR.,

medir el impacto del mismo en el sector educativo, productivo y en las condiciones de vida técnica-profesional de los graduados.

- Analizar y hacer recomendaciones acerca del grado de participación y capacidades de liderazgo intercultural de los educando, tanto en su calidad de estudiantes como una vez egresados del Centro, inclusive la inserción de los egresados en el mercado laboral.
- Analizar y hacer recomendaciones acerca la participación y fortalecimiento de las mujeres, indígenas y minorías étnicas en el proyecto.
- Hacer las recomendaciones y propuestas específicas para potenciar y optimizar el trabajo integral del Programa para el período 2009-12 en el programa, identificando acciones pertinentes a realizar, según los resultados, para asegurar la continuidad y sostenibilidad del Programa, tomando en cuenta el marco económico disponible para el proyecto.
- Analizar hasta qué punto el proyecto, la selección y la relación de contrapartes está en coherencia con *"la Estrategia para la educación para el desarrollo 2008-2012"* y *el programa de SAIH para Nicaragua y hacer recomendaciones para aprovechar las potencias en la cooperación.*

## **5. ALCANCE DE LA EVALUACIÓN.**

Los ejes de la evaluación serán los siguientes:

- La relación entre los resultados alcanzados con los esperados según Planes Operativos Anuales (*Efectividad*: componentes del proyecto, gestión, operación, auspiciamiento, educación, organización, producción y comunidad).
- La relación entre los recursos asignados y utilizados con los logros y resultados (*Eficiencia*).
- Funcionamiento administrativo FADCANIC-SAIH en términos de coordinación, seguimiento, presentación de informes y controles internos y externos (*Desempeño*).
- Nivel de apropiación del Programa por parte de los beneficiarios (*Empoderamiento*).

- Participación de la mujer en el Programa y sus componentes y acciones respectivas (*Enfoque de Género*).
- Participación de indígenas y minorías étnicas en el Programa y sus componentes y acciones respectivas (*Enfoque intercultural*).
- 
- Impacto del Programa en la región, municipios y comunidades (*Impacto en Sector productivo, Técnico-Educativo y el Entorno*).
- Obtención y aprendizaje de experiencias acumuladas en el Programa y recomendaciones acerca de los planes de seguimiento en la fase II del 2009-12 (*Lecciones Aprendidas – Intercambios de Experiencias y seguimiento de lo aprendido*).
- Proyecto y relación de contrapartes en coherencia con estrategias de SAIH y planes locales y regionales

## **6. METODOLOGÍA**

Se contratará un consultor(a), para realizar la evaluación externa, quien tomará en consideración los ejes principales de la consultoría y el plan y cronograma de trabajo de acuerdo a los Planes Operativos Anuales del Programa. El consultor será seleccionado por FADCANIC y SAIH.

El consultor debe aplicar una metodología de trabajo que refleje con precisión el impacto del Programa en los territorios comprendidos por el mismo, tomando en consideración en la evaluación externa los cambios producidos por cualquier causa externa ajena a los propósitos originales del Programa.

La evaluación externa se realizará en un período de aproximadamente un mes, de manera que, el consultor deberá presentar al inicio un plan de trabajo y cronograma de actividades, así como la metodología e instrumentos específicos que se implementarán para realizar la evaluación externa.

Para la realización de la evaluación se contempla la visita del consultor a Wawashang, como centro de operaciones, pudiéndose desplazar a sitios de interés del proyecto y por ende de la evaluación externa y que tengan relación muy estrecha con los objetivos del mismo.

Durante el período de la evaluación la consultoría presentará un informe borrador en español para fines de discusión e incorporar los comentarios que tanto FADCANIC como SAIH, estimen conveniente realizar. Posterior a la incorporación de los comentarios si los hubiere, el consultor presentará un Informe Final escrito en Inglés y español, en dos originales, uno para cada institución (FADCANIC y SAIH).

## **7. PLAN DE TRABAJO DE LA CONSULTORIA.**

La ejecución de todo el proceso de consultoría contempla la elaboración de los instrumentos técnico-metodológicos para cada una de las fases de la misma, que incluye los procedimientos, organización, contenido y dinámica de trabajo, el plan de trabajo, cronograma de actividades estructura de los documentos finales. Estas actividades serán programadas en un periodo no mayor de seis semanas.

### **Etapas de la Consultoría.**

#### **a) Instalación y preparativos previos.**

- Firma de contrato.
- Reunión de consenso con FADCANIC y SAIH.
- Preparación de plan de trabajo (consenso y aprobación).
- Recopilación de la información disponible con los actores del Proyecto.
- Investigación documental de las diferentes etapas del Programa.

#### **b) Trabajo de campo.**

- Visita a la RAAS, Municipio de Laguna de Perlas y Wawashang.
- Entrevistas individuales a informantes claves (que conocen y dominan el comportamiento global y particular del Programa: actores claves, instituciones públicas y privadas, autoridades municipales y comunitarias).
- Entrevistas grupos focales (informantes claves se refiere a los estudiantes, docentes, técnicos y egresados del Centro, directores, líderes comunitarios).

**c) Trabajo de gabinete y taller.**

- Elaboración de primer borrador de evaluación externa, con sus conclusiones y recomendaciones.
- Interpretación, análisis y sistematización de la información (permitirá valorar los distintos niveles de apropiación del Programa, las expectativas de los actores del Programa y las prioridades del mismo).
- Realización de taller de retroalimentación con todo el personal técnico y administrativo del Programa, personas notables que contribuyen con el Programa (SAIH, FADCANIC, INATEC), utilizando el primer borrador de evaluación externa (análisis de la información recopilada, discusión y aportes de consideraciones generales que puedan ser incorporadas al Documento Final).

**d) Documento Final.**

- Preparación del Documento Final de Evaluación Externa.
- Presentación y aprobación del Documento Final.
- Preparación de un documento resumen, para su publicación
- Entrega del Documento Final.

**8. RESULTADOS-PRODUCTOS DE LA EVALUACIÓN.**

Según los objetivos de la evaluación externa, se deben presentar los resultados de la misma en forma de producto con evidencias precisas y claras, con los detalles necesarios sobre el nivel de cumplimiento por resultado esperado del Programa, conteniendo lo siguiente:

1. Un análisis de la experiencia desarrollada por FADCANIC, INATEC, MECD, SAIH, los estudiantes, maestros, personal del proyecto,. Además, incluye el grado de apropiación del Proyecto y sus componentes y objetivos, por parte de los estudiantes, maestros, autoridades locales y comunitarias; las metodologías aplicadas, procedimientos e instrumentos de evaluación, monitoreo y supervisión utilizados durante la ejecución del mismo.
2. Un análisis e impacto de como ha contribuido el proyecto al fortalecimiento de las comunidades beneficiadas y de la producción de las parcelas tanto de estudios como las particulares (estudiantes).
3. Un capítulo sobre la convivencia social multicultural y la participación de mujeres en el Centro Educativo (estudiantes,

docentes, técnicos/as, trabajadores) y su relación con el entorno. Análisis sobre el grado de divulgación de la innovación metodológica aplicado por el Proyecto en el entorno municipal y regional.

4. Un capítulo sobre los aspectos de sostenibilidad del Proyecto, considerando el grado de autosostenibilidad con ingresos de la finca escolar, administración de los recursos (becas, ingresos, mantenimiento) y evaluación de gestiones de la FADCANIC para incrementar la sostenibilidad con recursos de otras fuentes.
5. **Un Documento Final:** preparación de un Informe Final cuyo contenido se refiera al análisis de resultados y a las recomendaciones y propuestas sobre la ejecución del Proyecto **Centro de Educación Ambiental y Agroforestal – Wawashang en la RAAS**,. El Informe Final de la evaluación externa debe ser vinculado también al desarrollo de las comunidades beneficiarias e incluir la perspectiva de género, Plan Sectorial para todos los niveles y el impacto del mismo en la región, municipios y comunidades beneficiadas.
6. Un resumen, conteniendo los principales hallazgos de la evaluación externa para su respectiva publicación”

### **DURACIÓN Y LOCALIZACIÓN DE LA CONSULTORIA.**

La Consultoría de Evaluación Externa del Proyecto Centro de Educación Ambiental y Agroforestal Wawashang-RAAS, será preparada en un tiempo de aproximadamente un mes, tiempo que será distribuido en el cronograma de actividades con sus respectivas metodologías de trabajo según acciones a ejecutar.

La consultoría de evaluación externa se realizará principalmente en el territorio donde se sitúa el CEAA con visitas cortas a municipios seleccionados de donde proceden los y las estudiantes, más el apoyo que brindarán las oficinas de FADCANIC y SAIH.

Tiempo	Actividad	Responsable
2 días	Preparación	
14 días	Visita al campo	
2 día	Visita a SAIH	
5 días	Análisis de la información Elaboración de informe preliminar	
1 día	Presentación de resultados preliminares y insumos de FADCANIC y SAIH	
2 días	Informe final	

### **REQUISITOS DEL CONSULTOR.**

El Consultor/a deberá llenar los siguientes requisitos: profesional universitario relacionado con conocimiento acerca del sector educativo, con amplia experiencia en evaluación y análisis de proyectos medioambientales, económicos y sociales, conocimiento con enfoque de género y dominio de los asuntos de la Costa Caribe de Nicaragua, incluyendo trabajos relacionados con la formación estudiantes en diferentes niveles educativos y conocimiento de metodologías inovativas modernas de aprendizajes en un contexto multicultural.

Se dará preferencia a expertos con conocimientos de conversación y lectura del idioma inglés adicionalmente al Español.

El consultor-evaluador deberá hacerse acompañar de su respectivo curriculum vitae y de los soportes necesarios que certifiquen el contenido académico y laboral del mismo.

## Appendix 2. People interviewed.

Date	Name	Institution	Place
23.02.09	Ray Hooker	FADCANIC	Managua
23.02.09	David Bradford	Royal Norwegian Embassy	Managua
24.02.09	Hugo Sujo	FADCANIC	Bluefields
24.02.09	Hazel Wilson	FADCANIC	Bluefields
24.02.09	Ray Hodgson	Comité Regional FSLN	Bluefields
25.02.09	Luisa Martínez	Local leader, participant agro-forestry program	Bluefields
25.02.09	Winston Cash	CEAA, director	Wawashang
25.02.09	Ricky Monroe	CEAA, subdirector	Wawashang
25.02.09	Susanne Tienhaus	Agroforestry Project, director	Wawashang
25.02.09	Robert Thyne Itzel Centeno Lidilia Obregón Colman Gómez	CEAA, teachers	Wawashang
26.02.09	Rosalina Ramírez	Parent	Pueblo Nuevo
26.02.09	Evaluz Hernández	Parent	Pueblo Nuevo
26.02.09	Fidel García	Parent	Pueblo Nuevo
26.02.09	Juan Salazar	Parent	Pueblo Nuevo
26.02.09	Miguel Galeano	Responsible, Natural Reserve	Kahka Creek
26.02.09	Jenine Garth Blandford Johns Simon Zenon Marlon González	CEAA, third year students	Wawashang
27.02.09	Winston Cash	CEAA, director	Wawashang
27.02.09	Yolanda Rei Martínez Maricela Garzon Augustin Villa Reina Antonio Ramírez Luís Garzon Teyes	CEAA, students in the class of adults	Wawashang
27.02.09	Santos Vargas Parents	Student Ag. Project participants	Pueblo Nuevo
27.02.09	Sixto Miranda Delfa Álvarez Juan Zeldón Derek Martínez	CEAA, second year students	Wawashang
01.03.09	Marvin Valverde Melvin Valverde Grandmother	Ex-student (dropped out) Ex-student (dropped out) Ag. Project participant	Rocky Point
01.03.09	Marnie Tinkam	FADCANIC	Haulover
01.03.09	Mother, Wilfredo Vanegas	Parent	Haulover
01.03.09	Father of Jenine Garth	Parent	Haulover

01.03.09	Ingrid Cuthbert	Director Hospedaje Ingrid	Laguna de Perlas
01.03.09	James Hebbert	Ex-student, now FADCANIC	Laguna de Perlas
02.03.09	Lissa Powell	PLACE, director	Laguna de Perlas
02.03.09	Roberto Cuthbert Yamilé McDonald	Mayor Vice Mayor	Laguna de Perlas
02.03.09	Francisco Montoya	Ministry of Education	Laguna de Perlas
02.03.09	Elroy Romero Aditha Hansach Cherry Benliss	Communal government Council of elders Council of elders	Laguna de Perlas
02.03.09	Pedro Ordóñez	INAFOR	Laguna de Perlas
02.03.09	Kenneth Fox	Regional Council	Laguna de Perlas
03.03.09	Fermín González	Orinoco Secondary School, teacher	Orinoco
03.03.09	Victoria Rivas	Parent of ex-student	Orinoco
03.03.09	Daniel Rivas	Ex-student	Orinoco
03.03.09	Danny Rankin	Pastor Adventist Church	Orinoco
03.03.09	Mother of Alberto and Enrique Martínez	Mother	Orinoco
03.03.09	NN	Mother	Orinoco
04.03.09	Scarlet Rodríguez Elvis González Herson Prudo Ariel Padilla	Students, first year	Wawashang
04.03.09	Nolva Gutiérrez Katherin Fernández Sebastián Ordóñez Larry Justo	Mayagna students	Wawashang
04.03.09	Oscar Julias Enrique Palmiston Jairo Colomer Leonardo Williams	Miskitu students	Wawashang
04.03.09	Sheylene Moses Idalia Pérez Migdalia López Yelba Hodgson Yamileth Humphreys Claritza González	Female students	Wawashang
05.03.09	Lester Pineda Aler- mán Richard Waters	Agroforestry Project	Wawashang
05.03.09	Christy Garth	Ex-mayor Laguna de Perlas	Wawashang
05.03.09	Mark	CEAA Administrador	Wawashang
06.03.09	Fanny Chambers	Business woman	Bluefields