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Final report on:

CLUB P.A.N. 2015/2016

A conservation education project of the Wild Chimpanzee Foundation
in Guinea and Côte d'Ivoire



Tree planting activities in Club P.A.N. schools during the active conservation session

TABLE OF CONTENTS

1 Summary – page 3
2 Introduction - page 4
3 Club P.A.N. goals – page 5
4 Staff – page 7
5 Results- page 8
5.1 Teacher training – page 8
5.2 Club P.A.N. sessions – page 8
5.3 Parents’ days – page 10
5.4 Evaluations – page 12
5.5 Micro-projects – page 14
5.6 Partner-school-project – page 15
6 Conclusion & outlook – page 16
7 References – page 16
8 Acknowledgements – page 17

ACRONYMS

Club P.A.N. – People, Animals, Nature
CPE - Cellule des Projets Environnementaux
WCF – Wild Chimpanzee Foundation

1 SUMMARY

Club P.A.N. has now been running for nine consecutive years in Côte d'Ivoire around the Taï National Park and for six years in Guinea. The present report provides an overview of what has been done during this school year of the program (2015/2016).

Club P.A.N. was fully active during this school year; reaching five schools in Côte d'Ivoire with more than 260 children and four schools in Guinea with more than 480 children. All participating children attended two evaluations and 12 sessions. Children were included in the preparation of a parents' day at the end of their school year reaching more than 4300 villagers and parents with their presentations. WCF achieved all Club P.A.N. objectives set out.

The long-term partner-school-project between Club P.A.N. schools in Côte d'Ivoire and German schools has resulted in the Club P.A.N. program happening in Petit Tiémé and Adamakro. We would like to thank the Kepler Gymnasium Leipzig and Alexander von Humboldt Gymnasium Werdau for making this environmental education project possible! In addition, due to donations from the Kepler Gymnasium Leipzig, six girls from poor families were enrolled into school (school fees, uniform, books and materials for these girls were financed by their German friends). Furthermore, the school of Adamakro received financing to continue the construction of a new school building with two new class rooms from their partner school in Werdau. Numerous letters were exchanged between children from both counties during this school year.

In order to curb the threats of illegal bush-meat hunting and consumption, WCF developed numerous alternative livelihood micro-projects aimed at providing alternative sources of protein such as poultry, goats, cane rats and snails. The school micro-projects provide both an educational activity for many children in the villages but also a means to support the development of the schools. In 2015/2016, WCF supported school micro-projects in Para and Adamakro (goats), Ziriglo (chickens), Petit Tiémé (grass-cutters), and Sakré (snails).



Club P.A.N. children from Sakré in Côte d'Ivoire

2 INTRODUCTION

Wild chimpanzees are only found in tropical Africa, where their populations have declined by more than 66% in the last 30 years, from 600,000 to fewer than 200,000 individuals (Butynski 2001). A survey conducted in Côte d'Ivoire reports, that over the last 18 years, chimpanzee numbers have plummeted by 90% (Campbell et al., 2008). Throughout their range, chimpanzees are threatened by deforestation, bush-meat hunting, disease and capture for the pet trade. Although it is officially forbidden to kill, consume or trade wild animals, illegal hunting is widespread. The western chimpanzee has already disappeared from three African countries and is on the verge of extirpation in others. Urgent action is needed!

To assure the protection of chimpanzees, the WCF will continue its important short and long-term programs. Short-term projects, such as increased anti-poaching patrols and other law-enforcement strategies aim to reduce the impact of bush-meat hunting on local wildlife populations. The long-term projects like public outreach and awareness-raising programs play a vital role in changing local attitudes towards the intrinsic value of wildlife. Conservation education is a priority long-term action for the conservation of chimpanzees and other wildlife (Kormos and Boesch, 2003). In 2007, WCF created nature clubs called "Club P.A.N." (Personnes, Animaux et Nature / People, Animals & Nature) for primary schools in West Africa. Club P.A.N.'s prior success led to the continuation of the programme for its ninth year in Côte d'Ivoire and for the sixth year in Guinea.



Club P.A.N. children with Marius the chimpanzee and Pia the leopard

3 CLUB P.A.N. GOALS

WCF mission

Ensure the long-term protection of viable wild chimpanzee populations and their forest habitats.



Wild chimpanzees from Taï National Park in Côte d'Ivoire

Global project goals

School children located near chimpanzee habitats are discouraged from consuming bush-meat and are pro-active in the conservation of chimpanzees and their forested habitat.

Specific project goals

1. Teach children about local flora and fauna, so that they appreciate the biodiversity that exists in their region.
2. Teach basic knowledge on environmental issues in order to promote care and awareness towards nature conservation.
3. Discourage trade in illegal bush-meat by reducing the likelihood that the current generation of children will consume or trade bush-meat in the future. Develop alternatives to bush-meat consumption.
4. Promote conservation and research activities undertaken within the countries. Encourage local support towards the conservation of chimpanzees and their habitat.

Table 1: Club P.A.N. goals, activities and results.

Goals	#1	#2	#3	#4
	Teach children about local flora and fauna, so that they appreciate the biodiversity that exists in their region.	Teach basic knowledge on environmental issues in order to promote care and awareness towards nature conservation.	Discourage trade in illegal bush-meat by reducing the likelihood that the current generation of children will consume or trade bush-meat in the future.	Promote conservation and research activities undertaken within the countries.
Activities	Five sessions emphasize the flora and fauna of the region's ecosystems: (topics: "tropical forests", "biodiversity", "chimpanzees", "the food chain" and "national parks").	During the "environment" and "the animals and their habitats" sessions, students are taught the fundamental principles of biology, ecology and conservation.	The "human-animal conflict" session focuses on the illegal bush-meat trade. Information is presented regarding the threats to plants and animals, discussion rounds and a play about the trade sensitizes the students and is used to convey the destructive effect of these practices. School micro-projects provide alternative protein sources and additional education in eco-farming.	The "protected areas" session conveys the importance of national parks and what humans are allowed to do or not to do in these areas.
	All sessions are interactive with games, songs, movies, nature walks and clean up actions. Teachers are intensively trained in biology and environmental sciences. Parents are actively involved in the club as well as on parents 'days when children from each class present what they have learnt in the form of summaries, plays and songs.			
Results (as determined by pre-and post-evaluations)	Increased knowledge regarding local flora and fauna.	Increased knowledge regarding environmental issues.	Students are able to identify the conflicts between humans and animals. Changed attitudes regarding consumption and trade of bush-meat.	Knowledge and support of conservation and research activities in the region.

4 STAFF

Club P.A.N. was possible because of a long-term collaboration with Cellule des Projets Environnementaux (CPE). The CPE coordinators Mr. Guilahoux and Mr. Ouattara are also the coordinators of Club P.A.N. since its start in 2007. Together with Mr. Gnolou, Mr. Brice and Mr. Kouakou in Côte d'Ivoire, Mr. Kaba, Mr. Kaba Lamine, and Mr. Couyaté in Guinea, they are guiding all principals and teachers. They assist the teachers on-site with the sessions, conduct teacher training, evaluate the project by quantifying student participation and administer a pre- and post-evaluation. In total, nine teachers and nine principals formed the Club P.A.N. staff during this school year.



Club P.A.N. coordinators, teachers and principals during their training in Guinea



Club P.A.N. coordinators: Mr. Gnolou, Mr. Kouakou, Mr. Guilahoux, Mr. Ouattara, and Mr. Kaba

5 RESULTS

5.1 Teacher training

Normally, all teachers and principals receive intense trainings to increase their capacity for environmental education and to guarantee that sessions and activities would have the utmost impact during the school year.

In Côte d'Ivoire, we were not able to host a teacher training this year, because we did not have enough funding for the project. Because we work with the Club P.A.N. coordinators from CPE (Mr. Gnlou, Mr. Guilahoux and Mr. Ouattara) since nine years already, they are very well trained and skilled to lead the Club P.A.N. sessions. Some teachers also work with us since nine years such as Modeste Gnonkonte from Sakré. For further school years, we still would prefer to open the school year with a teacher training session and funding needs to be secured for this.

In Guinea, the Club P.A.N. teacher training was held from 03.-07.11.2015 at the WCF office in Labé. Our coordinator Mr. Moussa Kaba was organizing and leading the training with the help of the WCF expert Ms. Marilou Gateau. For the opening ceremony the “Gouverneur de la région de Labé” and the “Inspecteur de l’Education” visited the teacher training workshop and gave their support to the program. We thank the participants for their motivation and great work during these five days of intensive training!



Club P.A.N. teachers and principals during their training in November 2015

5.2 Club P.A.N. sessions

During the 2015/2016 school year five schools in Côte d'Ivoire participated with 262 children and four schools in Guinea with 486 children, summing up to a total of nine schools and 748 children plus their families.

The five schools around the Taï National Park in Côte d'Ivoire were: Sakré, Ziriglo, Gouléako 2, Petit Tiémé and Adamakro. The four schools in the Foutah-Djallon Bafing region, Guinea were: Kounet, Keyla, Kalinko and Kollet. These schools have been selected according to their location close to the new Moyen-Bafing National Park with the largest wild chimpanzee population in West Africa.

The 12 Club P.A.N. sessions involved fact sheets, activities, role playing, songs and games with animal puppets which are based around a chosen theme. We aim to promote positive club spirit through interactive learning and essentially having fun. Each child that participated received a Club P.A.N. book and T-Shirt which means a lot to them. Some sessions focused on the concepts

of sustainable resource use and the need for protected areas; others detail the natural history of various large protected mammals like chimpanzees and elephants.



Outdoor nature class room in Guinea

During our active conservation session (Number 11) we had great conservation projects including tree planting at each of the five schools in Côte d'Ivoire and a sensitization project in each of the four villages in Guinea, where the children went in groups into families and discussed with them the pollution of water in Kollet; forest fires, slash and burn agriculture in Kounet; deforestation and its consequences in Kyla; and pollution of the environment in Kalinko.



Club P.A.N. children discuss with their village "Kalinko" the pollution of the environment

The newly created "Health" session (Number 12) from last school year was included into the program again. This session was created by researchers from the Robert Koch-Institute in Berlin, as a response to the Ebola outbreak in West Africa in 2014 and concentrates on good hygienic practices for preventing the transmission of diseases.



Club P.A.N. session "Health" in outdoor nature class room

We created a website: www.wildchimps.org/wcf/english/pan, and blog: <http://clubpan.blogspot.com>, which are updated regularly to highlight how successful Club P.A.N. has been.

5.3 Parents' days

To have a greater effect on the Club P.A.N. program, it was decided that parents need to be involved; therefore, parents' days were created at the end of each school year. During these events the children present what they have learnt in form of songs, theatre, and poems to their families and villagers.



Club P.A.N. parents' day in Guinea

This year each school held its own parents day, so a total of eight events were organized. Only the school of Ziriglo did not organize its event because of a personal conflict with the school principal of Ziriglo and the CPE coordinator Mr. Kouakou, which is very sad but hopefully solved. On average each of the eight events had around 480 spectators. In total, we have reached around 4300 villagers and parents this year.



Club P.A.N. parents' day in Côte d'Ivoire

Table 2: Number of spectators at the parents' days during the school year 2015/2016

School	Number of spectators
Petit Tiémé, Côte d'Ivoire	~ 500
Adamakro, Côte d'Ivoire	~ 600
Gouléako2, Côte d'Ivoire	~ 500
Sakré, Côte d'Ivoire	~ 350
Ziriglo, Côte d'Ivoire	0
Kounet, Guinea	~ 600
Keyla, Guinea	~ 550
Kalinko, Guinea	~ 600
Kollet, Guinea	~ 600
Total	~ 4300
Average	~ 480

5.4 Evaluations

Pre- and post-evaluations of Club P.A.N. children in personal interview form were done in Côte d'Ivoire and in Guinea by our local coordinators. The evaluation sheets are the same in both countries. Results show that Club P.A.N. children increased their knowledge by 67% on average in Côte d'Ivoire (Wilcoxon Exact Test: $T+=55$, $N=10$, $P<0.01$) and by 30% on average in Guinea (Wilcoxon Exact Test: $T+=52$, $N=10$, $P<0.01$). Education levels in the remote region of the Foutah-Djallon Bafing in Guinea are much lower than in Côte d'Ivoire. Teachers are less well educated and trained. For future school years, we have to invest more time training the teachers in Guinea and we have to evaluate their work with a test as well.

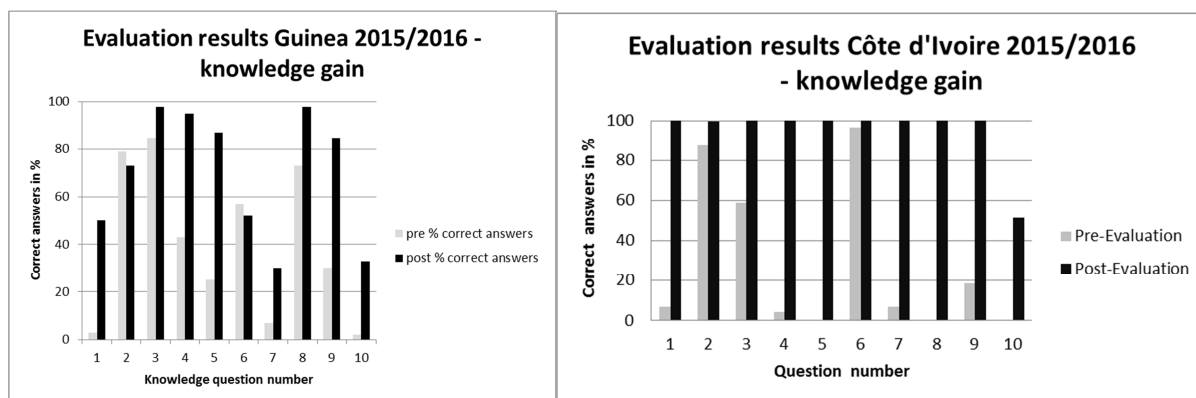


Figure 1: Correct answers in percent to ten knowledge questions during pre- and post-evaluations in Guinea (left) and Côte d'Ivoire (right) show the knowledge gain after the Club P.A.N. program

There were questions where children increased their knowledge up to 100% in Côte d'Ivoire (Wilcoxon Exact Test: $T+=2850$, $N=75$ (0 ties), $P<0.01$), for example question Number 5: “Name three rules/laws for National Parks” with a similar knowledge increase in Guinea of up to 62% (Wilcoxon Exact Test: $T+=760$, $N=39$ (21 ties), $P<0.01$). In the pre-evaluations, before the Club P.A.N. program has started, most of the children cannot name rules/laws that protect National Parks. But after the 12 sessions in the post-evaluation interviews, most of them are able to answer something correct like it is forbidden to hunt bush-meat, to do fishing, to cut trees, and to do mining.

There are some interesting answers in the pre-evaluation sheets that we think are worth mentioning. For example four children in Guinea answered in the pre-evaluations that an endangered species is an animal which is killing humans. Furthermore, nine children answered that animals are important because eating their bush-meat is like a medicine for humans and from their skin human can make shoes. These answers show that environmental education is urgently needed. And we were not able to find such answers in the post-evaluations.

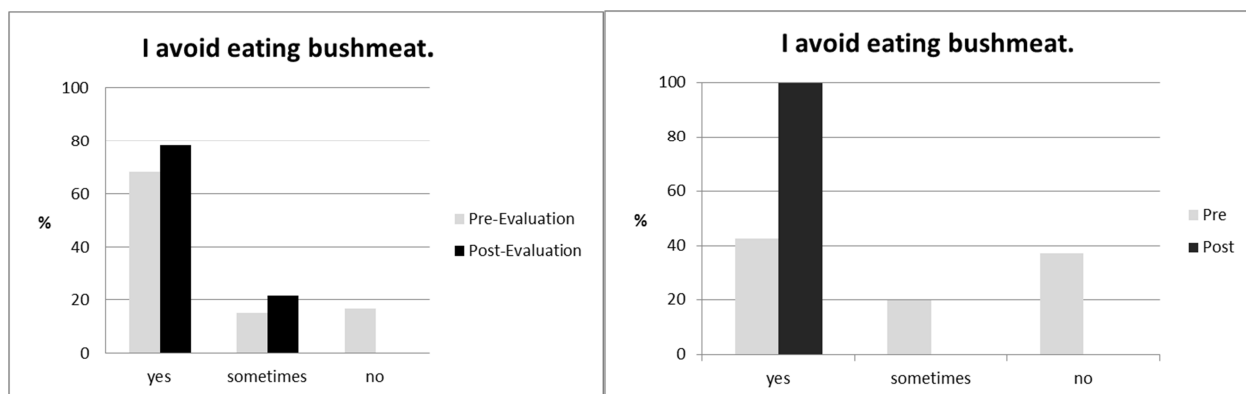


Figure 2: Answers in percent to the statement “I avoid eating bushmeat” during pre- and post-evaluations in Guinea (left) and Côte d'Ivoire (right)

In Côte d'Ivoire all Club P.A.N. children want to avoid eating bush-meat in the future, this is a great sensitisation result of our environmental education program (Wilcoxon Exact Test: $T+=946$, $N=43$ (32 ties), $P<0.01$). In Guinea, 78% of the participating children also want to avoid eating bush-meat, but there are still 22% that sometimes want to eat bush-meat, we still need to work with these children (Wilcoxon Exact Test: $T+=188.5$, $N=21$ (39 ties), $P<0.01$).

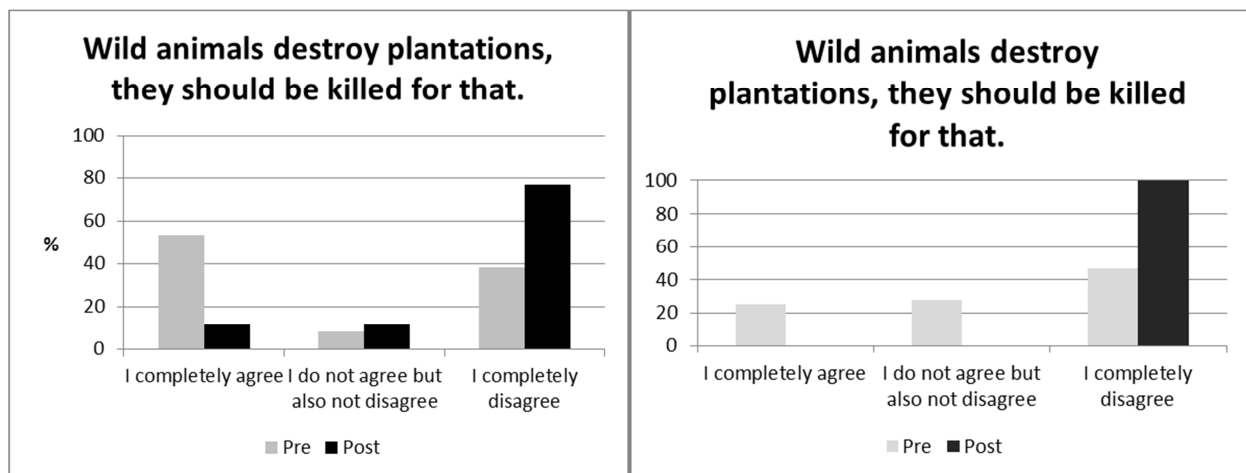


Figure 3: Answers in percent to the statement “Wild animals destroy plantations, they should be killed for that” during pre- and post-evaluations in Guinea (left) and Côte d'Ivoire (right)

Club P.A.N. children in Guinea and Côte d'Ivoire already showed a positive attitude towards nature in the pre-evaluations and this attitude became more positive in the post-evaluations. For example, in Côte d'Ivoire all Club P.A.N. children disagree with the statement “Wild animals destroy plantations, they should be killed for that” after the Club P.A.N. sessions during the post-evaluation (Wilcoxon Exact Test: $T+=820$, $N=40$ (35 ties), $P<0.01$). In Guinea 77% of the children disagree as well, but still 12% agree with the statement and this shows that further sensitization is urgently needed in this remote region with high biodiversity (Wilcoxon Exact Test: $T+=615.5$, $N=36$ (24 ties), $P<0.01$).

In Côte d'Ivoire, 100% of the participating children loved Club P.A.N. enormously and all of them were able to remember something important about nature, chimpanzees and conservation.

In Guinea, 52% loved Club P.A.N. enormously, 45% a lot and 3% a little bit. There 88% of the children were able to name something they remember from the sessions such as ecosystem, biodiversity and the conflicts between humans and wildlife,

Club P.A.N. evaluation results from past years are published by Claudia Borchers and colleges (Borchers et al., 2013) in a peer-reviewed journal. Borchers et al. (2013) also found that participation in Club P.A.N. significantly increased environmental knowledge and positively influenced attitudes towards nature.

We also evaluated parents during the parents' days in interview form. All interviewed parents gave positive feedback to the program, it was mentioned that the children increased their knowledge and that they received T-Shirts and school materials such as books. 100% of the children had talked to their parents at home about Club P.A.N. and all parents were able to report something the household had learned from Club P.A.N. such as the importance of national parks, also words like ecology and biodiversity were named by parents in both countries. For example the father Mamadou Billo Fofana from Kayla, Guinea answered after the parents' day: "Our children have made us realize that our environment is seriously threatened by human activities."

Parents mainly answered with "increasing the number of Club P.A.N. schools" and "following the laws" to the question "Which other activities are important to protect the nature in your region?" The mother Sory Kaba from Kalinko, Guinea answered to this question: "We have to encourage reforestation and forbid bush-meat hunting for everyone!" The mother Kamoni Sita from Gouleako2, Côte d'Ivoire answered with: "more theatre plays are needed to get more knowledge about nature".

5.5 Micro-projects

In Côte d'Ivoire, the micro-projects developed in primary schools by WCF in cooperation with CPE help stimulate the consumption of local livestock meat and work to educate children in sustainable agriculture as an alternative to illegal bush-meat hunting, consuming and/or selling.

Table 3: Summary of ongoing school micro-projects

Type of farm	School	Date created
Grass-cutter	Petit Tiémé	2006
Snail	Sakré	2010
Chicken	Ziriglo	2014
Goat	Para	2014
	Adamakro	2014



Club P.A.N. school micro-project chicken farm in Ziriglo

5.6 Partner-school-project

The long-term partner-school-project between Club P.A.N. schools in Côte d'Ivoire and German schools has resulted in the Club P.A.N. program happening in Petit Tiémé and Adamakro. We would like to thank the Kepler Gymnasium Leipzig and Alexander von Humboldt Gymnasium Werdau for making this environmental education project possible! In addition, due to donations from the Kepler Gymnasium, six girls from poor families were enrolled into school. School fees, uniform, books and materials for these girls were financed by their German friends. Furthermore, the school of Adamakro received financing to continue the construction of a new school building with two new class rooms from their partner school in Werdau. The school of Adamakro did not have enough class rooms for all their children and classes were extremely crowded.



The Club P.A.N. partner-school-project has resulted in the exchange of numerous letters and small gifts between friends in Germany and Côte d'Ivoire

6 CONCLUSION & OUTLOOK

Thanks to the support of our sponsors, collaborators and partners, the WCF's environmental education program Club P.A.N. was fully active during the 2015/2016 school year in nine schools in Guinea and Côte d'Ivoire with a total of 748 children participating and approximately 4300 adult spectators during the parents' days celebrations.

Our evaluation results showed that Club P.A.N. was able to increase the knowledge of the children, not only about the local flora and fauna, but also about biological facts and global environmental issues (Borchers et al. 2013). Furthermore, we were successful in changing attitudes (Borchers et al. 2013) and were able to create a fun and dynamic learning environment that the children enjoyed.

One of WCF's strengths is the motivation of our team, always reactive and creative when it comes to bringing people together for the sake of chimpanzee conservation. Because each school year we have new children joining the nature clubs and long-term conservation education programs have been shown as an efficient medium to change local attitudes (Borchers et al. 2013), the WCF will continue nature clubs for another school year.

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