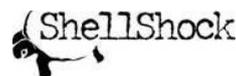
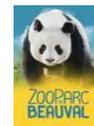


KATALA INSTITUTE FOR ECOLOGY AND BIODIVERSITY CONSERVATION (KIEBC)

Annual Report 2013



By

Katala Foundation
INCORPORATED

PETER WIDMANN, SABINE SCHOPPE, DIVERLIE ACOSTA AND INDIRA L. WIDMANN
Puerto Princesa City, Palawan, Philippines
May 2014

KATALA INSTITUTE FOR ECOLOGY AND BIODIVERSITY CONSERVATION (KIEBC)

GENERAL INFORMATION

Name: KATALA Institute for Ecology and Biodiversity Conservation (KIEBC)

Location: Antipuluan, Narra, Palawan, Philippines

Proponent: KATALA Foundation, Inc., (KFI)
2nd Floor JMV Building, National Highway, Santa Monica, Puerto Princesa City
5300 Palawan, Philippines
Mailing address: P.O. Box 390, Puerto Princesa 5300
Phone: Tel. / Fax: +63 048 434 7693

Environmental Compliance Certificate: ECC-4B-042-PA-5012-2007
SEP Clearance: KFI-121505-006

Goal: Conservation of Palawan's biodiversity through establishment of an education, conservation and research institution in close vicinity to threatened target species and ecosystems.

Objectives: To serve as a venue for conservation education with local population, youth, national and international visitors as main target groups.
To develop procedures for rescue, conservation breeding, habitat restoration and eventually re-introduction of selected highly threatened wild species of Palawan, like Philippine cockatoo and Philippine forest turtle.
To establish an institution for research on applied ecology and biodiversity conservation, with focus on threatened species management, priority area conservation and restoration.

Time Frame: Preparatory Phase: August to November 2006
Operational Phase One: December 2006 to December 2008
Operational Phase Two: January 2009 to December 2010
Operational Phase Three: January 2011 to present

Philippine Project Cooperators:

Department of Environment and Natural Resources (DENR)
Biodiversity Management Bureau (BMB) formerly Protected Areas and Wildlife Bureau (PAWB)
Palawan Wildlife Rescue and Conservation Center (PWRCC)
Palawan Council for Sustainable Development Staff (PCSDS)
Municipal Government of Narra, Palawan, Philippines

PROJECT DESCRIPTION

Rationale

The Palawan faunal region is of high species diversity, reminiscent of the close-by island of Borneo, but at the same time holds a high percentage of endemics, therefore resembling the Oceanic Philippines. Although still extensive areas of pristine forests, mangroves and coral reefs exist on Palawan, the rate of destruction, deterioration and fragmentation of these ecosystems is one of the highest in Southeast Asia.

Since 1998, KFI is implementing the Philippine Cockatoo Conservation Program (PCCP) in Narra, Palawan. It is one of the first community-based species conservation programs in the Philippines, and was deemed as one of the most successful of its kind. Within ten years, the population of the critically endangered Philippine cockatoo increased tenfold in a protected area specifically established for this species. Rasa Island is now the single-most important habitat for the Philippine cockatoo and is one of the most accessible wild places in the Philippines for a broader public to experience first-hand a rare and endemic species in its natural habitat.

In order to institutionalize this project and to broaden conservation efforts within southern Palawan, the establishment of the KATALA Institute for Ecology and Biodiversity Conservation (KIEBC) was envisioned by KFI and its local and international partners.

Project Location

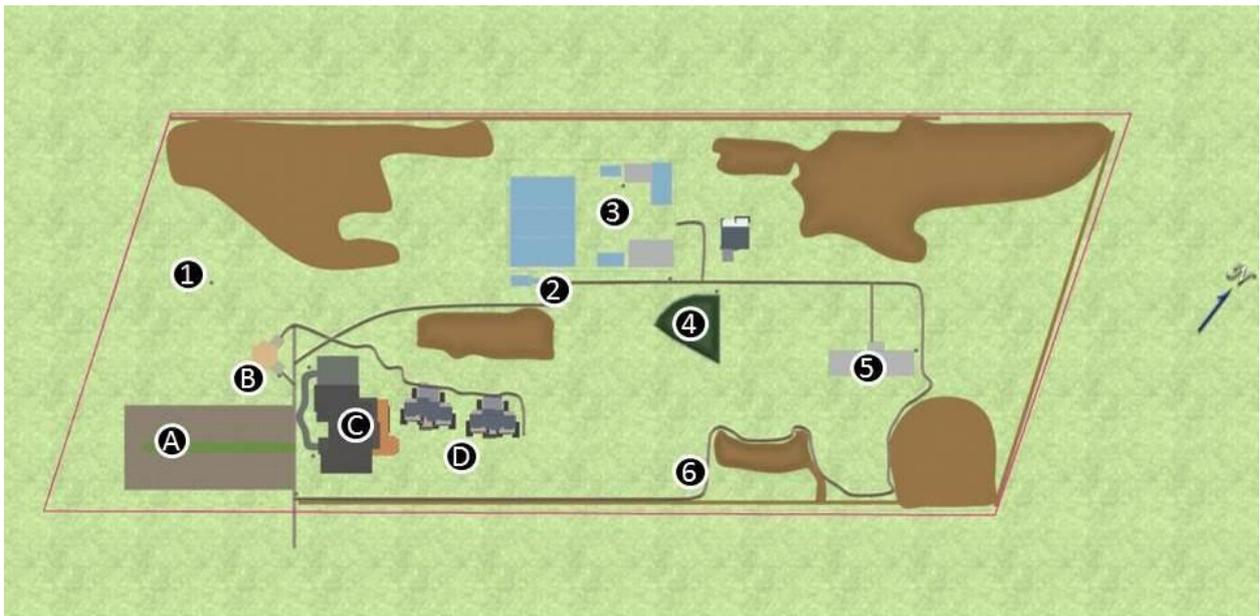


Figure 1. Updated development plan of KIEBC: red: perimeter fence; brown: ephemeral wetlands, green grass-and woodland. Existing structures: 1. Tree nursery; 2. Palawan Pond Turtle exhibit; 3. Quarantine area; 4. Palawan Porcupine exhibit; 5. Philippine Cockatoo aviary; 6. Circular trail. Planned structures: A. Parking area; B Pavilion (under construction); C Environmental training centre; D. Guest houses

The project site is located in Barangay Antipuluan, Narra, Palawan. It is situated about 1.5km northeast of the Narra town proper in the coastal plain, only about 200m away from the National Highway. Here the KATALA Institute for Ecology and Biodiversity Conservation was established. The site encompasses a total land area of 2.18ha donated by the municipal government of Narra. The area is surrounded by pastures and paddy fields, with the Victoria Range as spectacular backdrop.

Project Goal and Objectives

The goal of the KATALA Institute for Ecology and Biodiversity Conservation can be summarized as follows:

Conservation of Palawan's biodiversity through establishment of an education, conservation and research institution in close vicinity to threatened target species and ecosystems.

Objective 1: To serve as a venue for conservation education with local population, youth, national and international visitors as target groups

Objective 2: To develop procedures for rescue, conservation breeding, habitat restoration and eventually re-introduction of selected highly threatened wild species of Palawan

Objective 3: To establish an institution for research on applied ecology and biodiversity conservation

Executive Summary

Philippine Cockatoo

- Three birds are kept in the large aviary in the public area, whereas Silver remains in an outdoor aviary in the quarantine area due to continued aggression.
- A sprinkler system has been installed to give the birds opportunity to take a bath during longer dry spells.
- The cockatoo diet was revised to an even lower-calorie-regime during the visit of Thomas Arndt in December. Enrichment of the aviary was found to be of good quality during this visit.
- The smaller aviary that is used to isolate aggressive cockatoos was also repainted and installed.
- The indoor cage within the bird clinic was constructed.

Freshwater turtles

- Monthly monitoring visits have been conducted to supervise the husbandry of *S. leytensis* in Narra.
- An undergraduate student of Western Philippine University conducted her thesis on the husbandry of *S. leytensis* in KIEBC from October 2012 to January 2013.
- Nesting areas were diversified, different nesting substrates were offered, additional shelter in the water and on land were provided.
- Turtles were inventoried on a monthly basis and growth was monitored in February and May 2013. Turtles were dewormed in February.
- It was found out that egg texture of *Siebenrockiella leytensis* improved with diversification of food and adding of food supplements. However no hatchlings were produced.
- Weights of turtles were stable and so were sizes since all are adults.

Palawan Pangolin

- One individual was turned over to KIEBC and after stabilization was released by Mr. Alfaro of CENRO-Narra.

Palawan Porcupine

- On October 17 a Palawan Porcupine from Apis, Aborlan was handed over to KIEBC. The animal was apparently healthy and fed well. The animal was consequently handed over to PWRCC.
- Two male porcupines for which KFI has entered into a wildlife loan agreement with BMB-DENR still await transfer from Quezon City to Palawan.

Landscaping

- A number of woodland islands are now developing in the area. Wild cockatoos are seasonally foraging on fruiting trees.
- As of this reporting period 52 wild bird species have been recorded from KIEBC.
- As of August, 1,200 tree seedlings in 32 species have been planted until this date. Between September and December a total of 540 seedlings were planted in KIEBC, another 150 were donated.
- By end of December 2,987 seedlings were still present in the nursery.

Educational trail and visitor facilities

- The aviary underwent minor repairs and improvement e.g. rotten nest boxes were replaced using drift wood from Rasa Island and two showers were put up in the aviary.
- A loop trail for visitors was laid out within the public area. The trails will successively be stabilized with boulders and covered with gravel.
- New wooden electrical posts were erected from the main line to KIEBC.
- Fencing project was continued in order to secure the perimeters of KIEBC. In November the main gate was replaced and the circular trail was partially 'paved' with round boulders to allow easier access in the future for visitors.
- A weather station was established within the quarantine area, including sensors for temperature and humidity inside the bird clinic.
- The construction of a visitor pavilion close to KIEBC entrance was started, but will continue in 2014. The facility will accommodate 36 to 40 visitors and is meant to give short orientation on the facility and also can serve for presentations and group discussions.
- A display pond for turtles measuring 1.9x1m of which 1x1m are pond and 0.9x1m land area has been constructed in June 2013. It harbors one adult male *S. leytensis*.
- The zookeeper received training to guide visitors and received a script with facts on the turtles.

Accomplishments

Philippine Cockatoo

Three birds are kept in the large aviary in the public area, whereas Silver remains in an outdoor aviary in the quarantine area due to continued aggression. In addition to the basic food, birds regularly receive wild fruits still attached to branches and foliage. Driftwood and cuttlefish 'bones' are regularly exchanged. A sprinkler system has been installed to give the birds opportunity to take a bath during longer dry spells. Despite these efforts, behavioral problems persist, particularly with Blue, one of the original batch which was recaptured during the translocation experiment in 2005. He is now equipped with a permanent neck collar to prevent him from mutilating himself in the breast area. In order to handle him without causing too much stress, he is now accommodated in a compartment within the large area, but with contact to the other birds.



Figure 2. Sealed bamboo segments with holes and seeds inserted are presented to the birds who then try to shake free the food treats (left); whole corn cobs are now very rarely given due to the new low-calorie diet (right; Photos; KFI)

On May 10, an injured cockatoo nestling from Rasa was handed over to KIEBC. The body cavity was injured during handling while nest monitoring. The wound was closed with six stitches and disinfected. Streptophen was given with the drinking water. The bird accepted only little food and succumbed to its injury on the following day.

The cockatoo diet was revised to an even lower-calorie-regime during the visit of Thomas Arndt in December. Enrichment of the aviary was found to be of good quality during this visit, and the general design of the aviary was praised. Swings made of thick rope and branches were added. These measures did however not have significant effects on the feather-plucking behavior of the birds.

The smaller aviary that is used to isolate aggressive cockatoos was also repainted and installed.

The indoor cage within the bird clinic was constructed. It covers a floor area of 2 m² and can be subdivided into two smaller compartments, if birds need to be separated. The cage receives natural light through glass blocks on one wall and a skylight.



Figure 3. A smaller aviary is repaired for rescue or emergency needs (left), painting of the indoor cage (right; Photo: KFI)



Figure 4. Front view of the indoor cage (left); skylight with wire panel (right; Photo: KFI)

Freshwater Turtles

Monthly monitoring visits have been conducted to supervise the husbandry of *S. leytensis* in Narra. An undergraduate student of Western Philippine University conducted her thesis on the husbandry of *S. leytensis* in KIEBC from October 2012 to January 2013.

Maintenance, repair and enrichment of enclosures were done when the need arose. Nesting areas were diversified, different nesting substrates were offered, additional shelter in the water and on land were provided. Protection from too much direct sun light was provided through placement of bamboo and *Nipa* matting.

Turtles were inventoried on a monthly basis and growth was monitored in February and May 2013. Turtles were dewormed in February. Food ratio was set at 5% of the body weight per week and animal protein feeding was reduced from four times to two times monthly. The food was diversified and supplemented with vitamins and minerals. It was found out that egg texture of *Siebenrockiella leytensis* improved with diversification of food and adding of food supplements. However no hatchlings were produced. Experimenting with different food items showed us that even food unknown to *S. leytensis* can be used to diversify the diet of the species. *Siebenrockiella leytensis* prefers animal proteins over plant matter and tends to obesity in captivity hence the provision of animal protein needs to be strictly controlled and should not exceed twice a month. Weights of turtles were stable and so were sizes since all are adults.



Figure 5. Measuring (left) and weighing (right) of *Cuora amboinensis* (Photos: KFI)



Figure 6. Confiscated *S. leytensis* intended for eventual release (Photo: KFI)

Other Wildlife



Figure 7. A Palawan Pangolin was turned over to KIEBC and released (left), whereas a turned over Palawan Porcupine was handed over to PWRRC (right; Photos: KFI)

Palawan Pangolin

One individual was turned over to KIEBC and after stabilization was released by Mr. Alfaro of CENRO-Narra.

Palawan Porcupine

On October 17 a Palawan Porcupine from Apis, Aborlan was handed over to KIEBC. The animal was apparently healthy and fed well. DENR CENRO was informed and consulted. The animal was consequently handed over to PWRCC, since it was not possible to acquire a permit to keep the animal in the facility.

Two male porcupines for which KFI has entered into a wildlife loan agreement with BMB-DENR still await transfer from Quezon City to Palawan.

Landscaping with native species propagated in the Katala nursery continued

Due to continued planting, a number of woodland islands are now developing in the area. Wild cockatoos are seasonally foraging on fruiting trees and are also interacting with the birds in the aviary. As of this reporting period 52 wild bird species have been recorded from KIEBC. Most of these are waterbirds, with ten species of Ardeidae (herons, egrets, and bitterns) alone. With increasing cover of woodland, also perching birds are in the increase.

All branches with foliage and fruits used for environmental enrichment for the captive cockatoos can now be harvested within the boundaries of KIEBC.

As of August, 1,200 tree seedlings in 32 species have been planted until this date; a total of 2,956 seedlings of 36 plant species was present in the nursery at this time. In September planting along the feeder road to KIEBC was undertaken with Malunggay and with assorted species on the compound. Between September and December a total of 540 seedlings were planted in KIEBC, another 150 were donated to Lapu-Lapu High school in Narra for their tree planting activities. By end of December 2,987 seedlings were still present in the nursery.

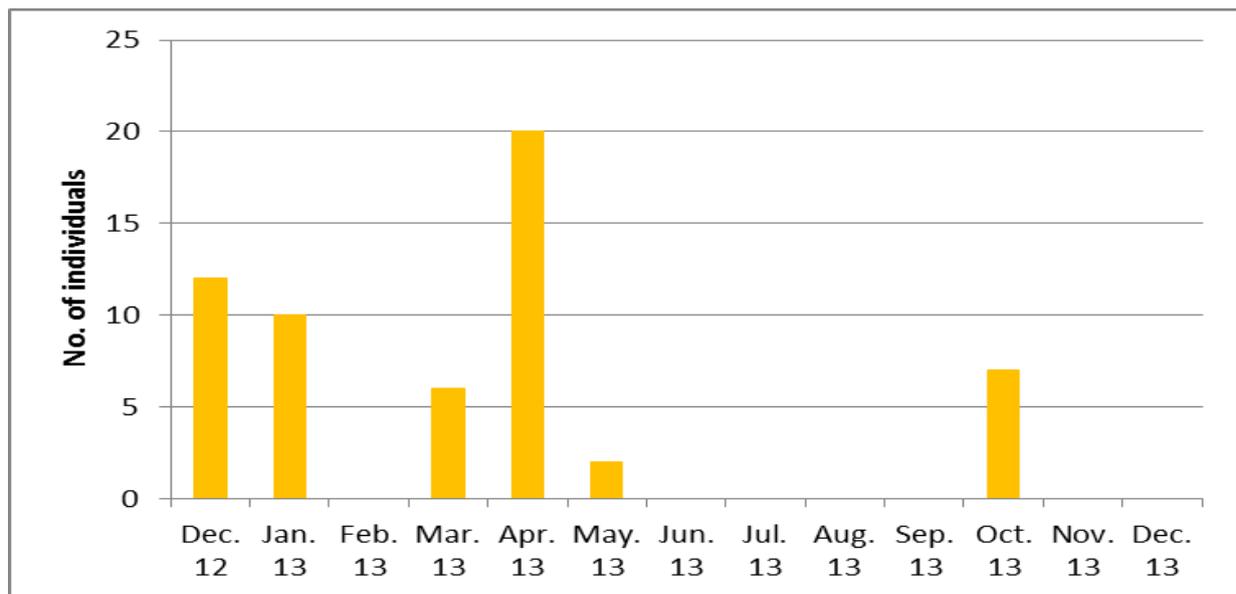


Figure 8. Highest simultaneous numbers of wild cockatoos by month foraging in KIEBC, Narra

Educational trail and visitors facilities upgraded

The aviary underwent minor repairs and improvement e.g. rotten nest boxes were replaced using drift wood from Rasa Island and two showers were put up in the aviary

A loop trail for visitors was laid out within the public area. This partially involved the creation of dykes in the more swampy portions of KIEBC. Culverts were produced on site to bridge canals. Ditches were excavated for better drainage. The trails will successively be stabilized with boulders and covered with gravel. New wooden electrical posts were erected from the main line to KIEBC. Fencing project was continued mainly from funds from the local government of Narra in order to secure the perimeters of KIEBC. A total of 130 linear meters had already been completed. Some areas could yet not be accessed until September due to being waterlogged. In October closing of the perimeter fence continued.

In November the main gate was replaced and the circular trail was partially 'paved' with round boulders to allow easier access in the future for visitors. A weather station was established within the quarantine area, including sensors for temperature and humidity inside the bird clinic.



Figure 9. Temporary trails in grass-and wetland portion of KIEBC (Photos: KFI)



Figure 10. The circular trail was partially paved during the reporting period to allow easier access to quarantine and aviary (Photos: KFI)



Figure 11. Information pavilion near KIEBC entrance in the stage of laying the foundation (left) and backfilling (right; Photos: KFI)

The construction of a visitor pavilion close to KIEBC entrance was started, but will continue in 2014. The facility will accommodate 36 to 40 visitors and is meant to give short orientation on the facility and also can serve for presentations and group discussions. The building is in

form of an octagon with two entrances/exits. Its foundation is concrete with backfilled material. Wall and roof will be made of wood, bamboo and palm-thatching. Seats will be elevated and means for LCD projection will be provided.

A display pond measuring 1.9x1m of which 1x1m are pond and 0.9x1m land area has been constructed in June 2013. Water depth of the pond is 0.7m. The land area has a den. The display pond harbors one adult male *S. leytensis* that quickly adjusted to the new environment and uses den and pond. The zookeeper received training to guide visitors and received a script with facts on the turtles.



Figure 12. Pond turtle enclosure under construction: the bamboo mat prevents reflection of intense sunlight from the glass panels (left); both the land and water portion can be viewed from the side (right; Photos: KFI)

Visitors

Date	Name of Visitor	Company
29-Jan-13	Kester Yen	CCC Climate Change Commission
10-Mar-13	Emma Nygren	Nordens Ark
10-Mar-13	Jimmy Helgesson	Nordens Ark
10-Apr-13	Debbie Villafuerte	KFI
10-Apr-13	Erwin Van den Beukel	KFI
30-Apr-13	Dr. Chris Shepherd	TRAFFIC SE Asia
9-May-13	Mercilita Almorfe	EMB Cenro Narra for KIEBC Monitoring
9-May-13	Adelaida	EMB Cenro Narra for KIEBC Monitoring
9-May-13	Eng. Rolando Tagyab	EMB Cenro Narra for KIEBC Monitoring
22-May-13	Michaela Altavas	Elac
22-May-13	Kathryn Leuch	Elac
26-May-13	Dr. Joanne Mae Justo	Biodiversity Conservation Center
27-May-13	Lifan Rusyadi	Burung Indonesia
27-May-13	Johanis Balla	Burung Indonesia
27-May-13	Hanom Basrari	Burung Indonesia
6-Jun-13	Dr. Agus Utumo	Burung Indonesia
12-Jul-13	Dr. Crista Halling	Canada
12-Jul-13	Dr. Glenn Ahetan	Canada
28-Jul-13	Jens Marquardt	GIZ
22-Sep-13	53 GSP Students from Municipality of Narra	Tour to turtles, aviary and nursery(Girl Scout Camping)
4-Dec-13	Dr. Thomas Arndt	ZGAP

KIEBC Compliance thru SMR

In May 9, 2013 the EMB CENRO Narra headed by Mercilita Almorfe and Engr. Tagyab visited KIEBC for the regular monitoring visit (see visitors list).

The Self Monitoring Reports (SMR) for 2013 were submitted in the following dates: May 16, 2013 – first quarter; August 14, 2013 - second quarter; and November 21, 2014 - third quarter.

Starting 2014, we will comply with the changes of the reporting period.

Constraints and measures taken

- There is urgent need to address the fluctuating electricity in the premises of KIEBC so not to cause more damage to equipment. We had changed as well some posts within the period; however, these are still needing the more durable and reliable posts.
- No funding could so far be secured for the proposed education center, partly due to time restrictions in identifying potential donors, and partly due to the high costs of the project. Proposals will be prepared, as soon as time permits.
- Free roaming livestock in the area remains a problem, since they break in the area and cause damage on vegetation and structures. In September a water buffalo damaged the perimeter fence. A police report was filed. The owner voluntarily paid 800 PhP in damages, which is however not sufficient for the repairs.
- In October four concrete posts of the perimeter fence were destroyed and interior steel bars were sold to a junk shop. Police report was filed, and steel bars were retrieved. However, thieves were not caught.
- In November large areas of KIEBC were flooded due to persistent rains. These events cannot be avoided, but structures, including key access roads and trails need to be elevated.

PERSONNEL INVOLVED

Indira Dayang Lacerna-Widmann and Peter Widmann – Program Managers PCCP

Dr. Sabine Schoppe – Director PFTCP

Siegfred H. Diaz – Field Operations Coordinator

J-Kris Gaño – Administrative Officer, Education Officer

Jewilyn C. Soquerata – Field Administrative Assistant Narra

Angeles G. Satioquia - Zookeeper

Diverlie Acosta - Pollution Control Officer, Turtle Health Care

Angelo Satioquia - Assistant Keeper / Landscaper

Affiliated Scientists:

- Glenn G. Rebong, DVM, PWRCC
- Dr. Nimal Fernando, Senior Veterinarian at Ocean Park, Aberdeen, Hong Kong
- Dr. Rizza A. Salinas, BMB-DENR, Quezon City
- Dr. Esteven Toledo, Dr. Nielson Donato, Dr. Emilia A. Lastica, PAWVI veterinaries

ACKNOWLEDGEMENTS

KFI is indebted to the following individuals and organizations for their assistance and generous support to realize all these activities:

- Mayor Clarito D. Demaala Jr. and his wife Executive Assistant Lucy, MENRO Rolando R. Tagyab, MPDO Ronald Fellizar, Municipal Engineer Parco, and the Sangguiniang Bayan of the Municipality of Narra.
- Regional Director Mr. Sixto E. Tolentino, Jr. of DENR-EMB; Director Dr. Theresa Mundita S. Lim of DENR-PAWB; PENRO Juan C. dela Cruz, Priscilla L. Adriano and Vivian Soriano of DENR-PENRO; CENRO/PASu Fernando T. Tactay, EMS Mercy Almorfe, and Deputy PASu Emmanuel Alfaro of CENRO Narra.
- OIC Director PWRCC Dir. Veronica D. De Guzman; Salvador Guion, PWRCC Chief on Operations and all their staff.
- OIC Director Romeo Dorado PCSDS.
- The veterinarians Dr. Glenn G. Rebong of PWRCC, Dr. Rizza A. Salinas of DENR-PAWB.
- To our sponsors and donors: Loro Parque Fundacion (LPF), North of England Zoological Society - Chester Zoo (NEZS), Zoological Society for the Conservation of Species and Populations (ZGAP), Fonds für Bedrohte Papageien (FbP) and Strunden-Papageien-Stiftung, Conservation des Espèces et Des Populations Animales (CEPA), ZooParc de Beauval, European Association of Zoos and Aquaria (EAZA) Shellshock Campaign, German Herpetological Society (DGHT), Turtle Conservation Fund (TCF), Turtle Survival Alliance (TSA), Ocean Park Conservation Foundation Hong Kong (OPCFHK).
- Special thanks to Marion Packer Trust through Dr. Walter Frey and all private donors.
- Thanks to KFI, especially President Juan Miguel Zubiri, and KIEBC In-charge Siegfried Diaz, and staff.
- Special thanks also to the assistant keeper Angelo, temporary assistant Mario Batac and most especially to main keeper Angeles G. Satioquia.
- Thanks to Pollution Control Officer Diverlie Acosta, who also conducted regular health check up of all animals at KIEBC.
- Thanks to all officials and residents of Bgy. Antipuluan, Narra.
- And to all staff, wardens, volunteers, students, OJT and construction workers who help in the progress of KIEBC.