

Scaling-up Public Education and Awareness Creations towards the Conservation of Black Crowned Crane (*Balearica pavonina* L.) in Jimma Zone, Ethiopia

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Public capacity Building

- There is ever increasing pressure on the world's natural habitats which leads to species loss
- Saving a species is not a quick or simple process - it may take several years or more of intensive management
- Conservation is an interdisciplinary field and not just about the ecology that underpins our understanding of biodiversity

The role of People in conservation

- ✓ People have different feelings about the importance of conservation b/c they value nature in d/t ways:
- ✓ Some people value nature for what it gives to them than in a material sense, like food, shelter, clean water and medicine which they need
- ✓ Others care more about less tangible things that nature provides for them , such as spiritual well-being or even a nice place to walk
- ✓ People may dislike some species or habitats b/c they see them as dangerous

In need of protection

- Species that are already threatened with extinction clearly are in more urgent need of protection than species that are still doing well.
- To make decisions, conservationists first need to work out how threatened, or vulnerable, a species is.
- On a global scale, the IUCN has produced the IUCN Red list¹ which classifies species according to their current vulnerability to extinction.

IUCN Red List Categories

How does the IUCN Red List categories species by extinction risk?

Species are assigned to Red List Categories based on:

- ❖ the rate of population decline,
- ❖ population size and structure,
- ❖ geographic range,
- ❖ habitat requirements and availability and
- ❖ threats.

There are nine Red List Categories:

1. ***'Extinct'*** which means no individuals of that species remain;
2. ***'Extinct in the wild'*** which means that species only exists in captivity
3. *'Critically Endangered'*
4. *'Endangered'*
5. *'Vulnerable'*
6. *'Near Threatened'*
7. *'Least Concern'*
8. *'Data Deficient'*
9. *'Not Evaluated'*

15 Cranes



1. Eurasian Crane,
2. Black-necked crane,
3. Munktrana,
4. Sandhill Crane,
5. Whooping Crane,
6. Japanese crane,
7. White-naped Crane,
8. Sarus Crane,
9. Australian Crane,
10. Siberian Crane,
11. Wattled Crane,
12. Demoiselle Crane,
13. Blue Crane,
14. Black Crowned Crane,
15. Grey Crowned Crane

Black Crowned crane

- The Black Crowned Crane is mostly black, with distinctive white upper and under wing coverts.
- The head is topped with a crown of stiff golden feathers.
- Cheek patches are red and white
- They use both wet and dry open habitats
- They are considered both year-round residents and local migrants,





Habitats

- **Wetlands (inland)**
 - ✓ Permanent Rivers/Streams
 - ✓ Marshes, Swamps
 - ✓ Freshwater lakes
- **Marine coastal**
- **Savanna- Dry**
- **Grasslands**
 - ✓ Subtropical/Tropical Dry
 - ✓ Subtropical/Tropical Seasonally Wet
 - ✓ Subtropical/Tropical High Altitude
- **Artificial/Terrestrial**
 - ✓ Arable land
 - ✓ Pasture land

Black Crowned Crane Distributions

The Black Crowned Crane is one of the six crane species in Africa (Harris and Mirande, 2013). Distributed across Africa from Senegal and Gambia in west Africa to Nile River basin in Sudan and



Source: IUCN, 2012

- Land Regions (1)
- North Africa (1)
 - Egypt (1)
- Sub-Saharan Africa (1)
 - Benin (1)
 - Burkina Faso (1)
 - Cameroon (1)
 - Central African Republic (1)
 - Chad (1)
 - Congo, The Democratic Republic of the (1)
 - Côte d'Ivoire (1)
 - Eritrea (1)
 - Ethiopia (1)
 - Gambia (1)
 - Ghana (1)
 - Guinea (1)
 - Guinea-Bissau (1)
 - Kenya (1)
 - Mali (1)
 - Mauritania (1)
 - Niger (1)
 - Nigeria (1)
 - Senegal (1)
 - Sierra Leone (1)
 - Sudan (1)
 - Togo (1)
 - Uganda (1)



Black Crowned cranes in Ethiopia

Lake Tana; Chimba, Yiganda, Gorgora and Fogera wetlands (Williams et al., 2003; Nowald et al., 2007).

In Oromia Regional state: Bishoftu, Lake Zeway, Akaki, Endode floodplain, Asendabo, Boye wetlands), Limu genet and Chora boter district

In SNNPS observed around Boyo wetlands (Nowald et al., 2013).

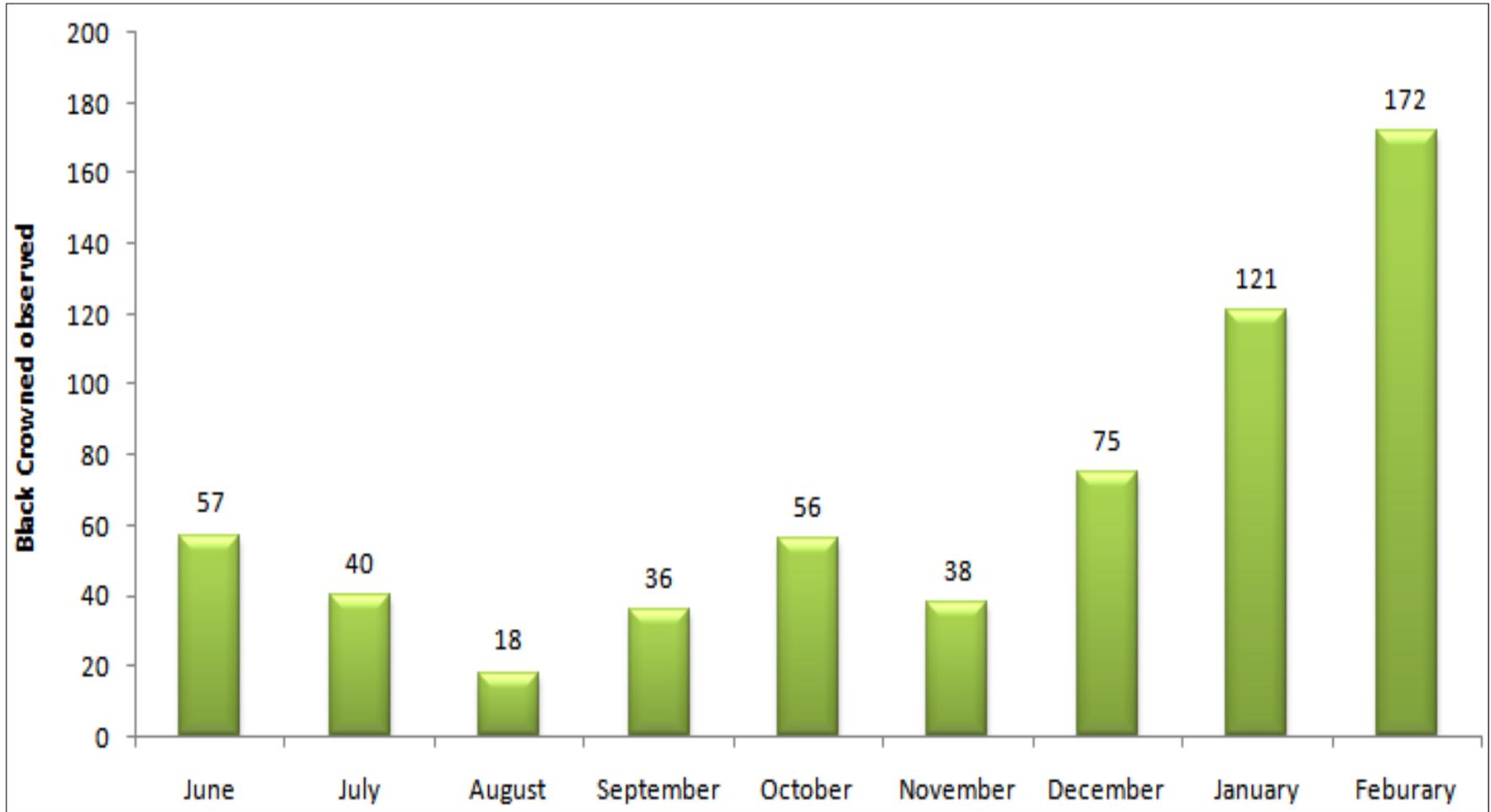
BCCs were also sighted in Jimma Zone (Nowald et al., 2007 and 2012; Tariku and Aticho, 2011; Archibald, 2012 and 2015; Gameda et al., 2016).

In 2012, a total of 1,368 BCCs are observed in Ethiopia (Archibald, 2012).

Number of Black Crowned recorded between June 7, 2016 and February 17, 2017

S.No	Month	Date of record	Number of observation
1	June	June 7, 2016	56
2	June	June 10, 2016	28
3	June	June 17, 2016	70
4	June	June 25, 2016	74
5	July	July 2, 2016	62
6	July	July 9, 2016	34
7	July	July 23, 2016	45
8	July	July 29, 2016	18
9	August	August 7, 2016	18
10	August	August 13, 2016	20
11	August	August 20, 2016	14
12	August	August 28, 2016	18
13	September	September 5, 2016	20
14	September	September 18, 2016	30
15	September	September 27, 2016	58
16	October	October 5, 2016	72
17	October	October 19, 2016	68
18	October	October 25, 2016	50
19	October	October 31, 2016	50
20	November	November 4, 2016	28
21	November	November 18, 2016	32
22	November	November 25, 2016	53
23	December	December 1, 2016	58
24	December	December 8, 2016	67
25	December	December 15, 2016	86
26	December	December 25, 2016	72
27	December	December 28, 2016	88
28	January	January 5, 2017	94
29	January	January 12, 2017	108
30	January	January 19, 2017	130
31	January	January 26, 2017	153
32	February	February 10, 2017	125
33	February	February 12, 2017	140
34	February	February 17, 2017	250

Average record of Black Crowned cranes in nine months



High Population in Dry Season

- ✓ Tendency for cranes to gather in flocks before the onset of the next breeding season.
- ✓ The juvenile cranes as they leave their parents and join flocks of other young cranes that have yet to reach the first breeding age of 3-5 years.
- ✓ It also is an opportunity for an unpaired bird to pair with another crane.
- ✓ After pairing, male cranes return to the area where they were raised, while females do opposite.

Black Crowned cranes in Ethiopia

In Ethiopia, BCCs are resident throughout the western parts of the country and the rift valley lakes (Nowald et al., 2007; Aynalem et al., 2010; Gemedda et al., 2016).

Use open grasslands, shallow wetlands and grasslands adjacent to water bodies for feeding, breeding and resting (Williams et al., 2003;Diagana, 2006; IUCN, 2012).

The species experience local daily and seasonal movements for searching of feeds and breeding sites (Meine and Archibald, 1996).

Black Crowned cranes in Ethiopia Cont'd

- Its population is declining across its home range and even in some countries disappearing (Meine and Archibeld, 1996; Williams et al., 2003; Boere et al., 2006; Beilfuss et al., 2007; IUCN, 2012; Harris and Mirande, 2013).
- It is predicted that the population decline will continuous in the future due to habitat loss and trapping of cranes for domestication (IUCN, 2012).

Previously published Red List assessments:

- 2016: Vulnerable (VU)
- 2012: Vulnerable (VU)
- 2010: Vulnerable (VU)
- 2008: Near Threatened (NT)
- 2006: Near Threatened (NT)
- 2004: Near Threatened (NT)
- 2000: Lower Risk/near threatened (LR/nt)
- 1994: Lower Risk/least concern (LR/lc)
- 1988: Lower Risk/least concern (LR/lc)

Why we focus on birds?

- Bird-watching tourism world-wide appears to be growing rapidly amongst Western travelers which substantially enhance local economies (Jones and Buckley, 2000).
- Diversity of birds and calls of birds constituted a major components of visitor satisfaction (Tisdell and Wilson, 2004).
- Bird-watching Can Help Eco-Tourism Fly High in a Green Economy (UNEP, 2012).
- ...God blessed them, saying ‘be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth (Genesis 1: 22).
- *Bzu tebazum yebayrim hua mulat: wefochim be midir lay yibizu*

Why birds?

- About 43 airlines bears birds on airlines and many countries used as stamp designers and postal services to feature the birds as national messengers to be sent around the globe.

What about cranes?

Today, cranes are presented to the public in many variations

6 airlines bear the crane

1. Lufthansa (German)
 2. Shanghai airlines (China Eastern Airlines)
 3. Xiamen airlines (China Southern airlines)
 4. Japans' airlines (Japan) (5), Polish airlines (Poland)
 6. Uganda airlines (Uganda)
- ❖ occupy an important place in the cultural life of the Turkana (Kenya) pastoralists as messengers of peace.
 - ❖ they were believed to get rid of livestock pests and to guard waterholes and swamps

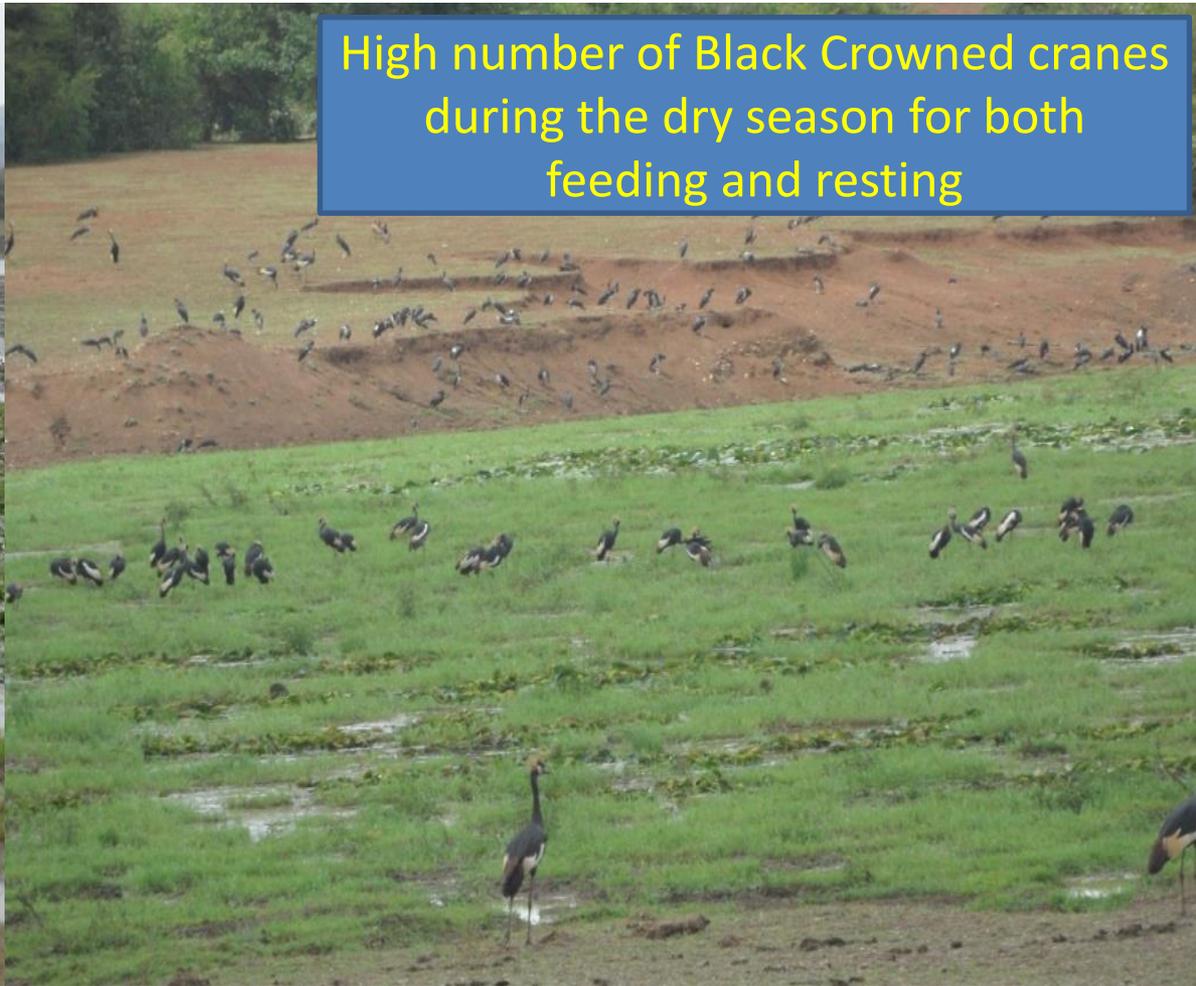
Main threats

- Climate change and Severe Weather-drought
- Agriculture
- Biological Resources Use
- Human disturbance
- ✓ Children
- ✓ Adults
- Natural System modification: the loss, transformation, and degradation of habitat
- ✓ +ve
- ✓ -ve
- Pollution
- ✓ Wetland contamination

Main threats Cont'd

Wetland conversions to agricultural lands

Main threats Cont'd



Success stories

- Workshop and outreach activities





Success stories

















So far..... In first round (Feb 2015 to Feb 2016)

- Local community **311** (in October 2015)
- Students **653** (Out of which 53 is NRM)
- **29** stakeholders (at district level)
- **17** teachers

Social media: YouTube, Twitter and face book also used

In Second round (May 2016 to May 2017)

- **More than 1000 people (Excluding mass media)**
- **52** students: May 24th 2016
- **28** key stakeholders, July 25th 2016
- Site visit with journalist and media staff, August 3, 2016
- **750** students and **14** teachers, November 29th 2016
- **55** students, December 8, 2016 (NRM)
- **191** students, December 13, 2016
- **40** local community, Feb 2017
- **48** students, May 24, 2017





Full Length Research Paper

Community knowledge, attitude and practice towards black crowned crane (*Balearica pavonina* L.) conservation in Chora Boter district of Jimma Zone, Ethiopia

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The black crowned crane is one of the six crane species found in Africa with population declining and considered as vulnerable species. Understanding the knowledge, attitude and practices of local people is important in conservation of black crowned crane. A survey study was conducted in Jimma zone, Chora Boter district in southwestern Ethiopia between February to November 2015 with the aim to investigate knowledge, attitude and practices of the community on the conservation of black crowned cranes. Data was collected through field observation, questionnaire survey (n=105) and focus group discussions. Descriptive statistics such as frequency, percentages, Chi-square test and tabulation were employed to analyze the quantitative data. Qualitative data were analyzed and interpreted thematically. The result of the study revealed that the number of black crowned cranes in the area varies with seasons. Maximum of 273 black crowned cranes were counted in the dry season and less number in the wet season. Most of the respondents, 73% perceived that the population of black crowned crane around Choralaki wetlands is increasing. The majority of the respondents, 93.3% confirmed that the black crowned crane is not a crop pest and only few, 6.7% claimed that they damage crops mainly maize. The results showed that community knowledge, attitudes and perception on Black Crowned crane



Critical review on Black Crowned cranes Conservation guideline in Afan Oromo Language

**Qajeelcha Kunuunsa Simbira Abbaa Waaqoo
Godina Jimmaa Aanaa Cooraa Botor**

**Conservation Guidline for Black Crowned crane (*Balearica
pavonina* L.) in Chora boter district of Jimma Zone**

Qopheessan: Barsiisaa Dassaleny Obsii, Yuunivarsiitii Jimmaa

Kan Gulalaan:

Obbo Hirphaa Baqqalaa (Barataa MA) Yuunivarsiitii Jimma
Obbo Derejee Akkassa (Barataa MA) Yuunivarsiitii Jimma
Obbo Alamaayyoo Gammadaa (Barataa MSc) Yuunivarsiitii Jimma
Obbo Maazgabuu Sanbatoo (Barataa MSc) Yuunivarsiitii Jimma
Addee Baalatuu Chaala (MSc)
Addee Hanna Yasiin (MSc)

Adooleessa, 2016

Jimmaa, Itoophiyaa

Review

Black Crowned crane (*Balearica pavonina* L.) conservation guideline in Chora Boter district of Jimma zone: The case of Ethiopia

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Received 20 January, 2016; Accepted 28 May, 2016

This guideline has been developed to provide directions for people working and interested to work on the conservation of Black Crowned cranes to save the species from loss and extinction. The conservation guideline is developed in consultations with the local communities and stakeholders in Ethiopia, Jimma zone, Chora Boter district through: field survey, focused group discussions, community and multi-stakeholders workshop from March 2015 to January 2016. Local communities and

CRITICAL ECOSYSTEM PARTNERSHIP FUND

July 23, 2015

CLP workshops - Ethiopia & Indonesia



Funding for black-crowned crane as a result of CEPF-funded workshop

We're delighted to announce the first successful result of a 5-day workshop run in Ethiopia in October 2014 to train early-career conservationists in project planning and fundraising.

Funded by the Critical Ecosystem Partnership Fund (CEPF) and co-led by Fauna & Flora International (FFI) and the Conservation Leadership Programme (CLP), we trained 15 participants who are working in, or planning to work on threatened species conservation in Key Biodiversity Areas across the Eastern Afromontane Hotspot. The training was a unique opportunity to get researchers working across Ethiopia together in one place to discuss their work and challenges as well as plan, draft and review each other's proposals. Participants were also able to meet two prospect donors for their projects which covered a range of species including the Endangered Ethiopian wolf, African wild dog and several species of crane.



Workshop participant Dessalegn Obsi from Jimma University informed us recently that the training helped him to develop a proposal to conserve the black-crowned crane which was funded by the Rufford Foundation in February. "I and my teams have benefited in a multi-dimensional way" explains Dessalegn. "The workshop provided skill enhancements, an opportunity to network with other participants and also to help each other in buddy reviews before sending proposals to prospective donors."

http://www.cepf.net/news/top_stories/Pages/Building-conservation-that-lasts-in-the-Eastern-Afromontane.aspx

An impact in Africa



Crowning glory

Desalegn Ojra Gemeda, head of the Department of Natural Resource Management at Jimma University College of Agriculture and Veterinary Medicine, participated in the 2014 Ethiopia workshop. The opportunity to network with other conservation working groups has since proved invaluable, particularly for post-review of proposals before submission. He subsequently used the skills and knowledge he acquired at the workshop to apply for funding from Rufford Small Grants for Nature Conservation. In February 2015 Rufford approved his application for a project entitled *Enhancing the Conservation of the Vulnerable Black Crowned Crane in Jimma District of Jimma Zone, The Core of Ethiopia*. The following year, Rufford was sufficiently impressed with the results to approve a follow-up project on the same species.



"I am proud of my project," says Desalegn, who addressed the issue of black-crowned crane conservation through public outreach work that included training, workshops and focused group discussions. "Several hundred community members, several governmental authorities from Chora Buter District and thousands of students at different levels gained awareness about the importance of conserving the black-crowned crane and its habitat. Above all, I was able to send a strong message to several million people on the issue of conservation by getting national media coverage through television and radio via the Ethiopian Broadcasting Corporation."

March 2015 (1)
January 2015 (1)
November 2014 (2)
August 2014 (1)
July 2014 (1)

POST CATEGORIES

Community involvement (4)
Grants Awarded (5)
Learning exchange (2)
Research (3)
Training (1)
Uncategorised (8)

RECENT POSTS

An impact in Africa 11th April 2017
Building bridges and breaking down barriers 18th December 2015
Turning dreams into reality 2nd September 2016
A leap in the right direction 31st August 2016
Blood, sweat, frogs and utters 18th August 2016

Conservation
Leadership
programme
April 11, 2017



Mass media coverage's: Sept 7 & 8, 2016







Figure 7: Providing reference books to strengthen the environmental education (© Aka Daffisa Sima)

Book donation (22)

Seven: Elementary School

Ten: High School

Five: Preparatory School

July 25th 2016

Motivation: for best performer of six students twice: **12 books**

Existing opportunities and challenges of Black Crowned Cranes conservation in Jimma Zone

Opportunities:

- ✓ The governmental is working on the issues of nature conservation
- ✓ The stakeholders (including farmers) has positive attitudes towards Black Crowned Crane Conservation
- ✓ Human-Black Crowned Crane conflict is not prevalent
- ✓ The government is promoting the values of wetlands (Black Crowned crane habitats)
- ✓ The communities were changing their attitudes towards Black Crowned Crane conservation through our capacity building

Opportunities and challenges Cont'd

Challenges:

- ✓ Wetland deterioration due to agricultural expansions
- ✓ Lack of farmers alternative livelihood diversifications
- ✓ Some people do not care about nature conservation
- ✓ Free overgrazing on wetlands
- ✓ Shortage of resources to reach all communities to aware the importance of Black Crowned Crane conservation
- ✓ Shortage of scientific data on the population and distribution of Black Crowned crane in Jimma zone and other regions in Ethiopia

Summary and Conclusions

Species conservation is essential not optional,

Wetland conservation is required for the survival of BCC

Public awareness is crucial to minimize the pressure of human beings on nature specifically wetlands

The future generation will be motivated towards nature conservation

Recommendation

- Awareness creations are strongly important on the value of wetlands
- The governmental and NGO's should work on the conservation of Wetlands and cranes
- The local government should promote Chalalaka wetlands as one of the potential ecotourism site
- Habitat loss may not be the only threats
- Further research should be conducted on the ecology and distribution of BCCs

Thank you!
Galaatoma!