

Country Name	<b>Environment Construction at Co-existent Areas of Human Beings and Crested Ibis</b>
People's Republic of China	

**I. Project Outline**

Background	<p>Population of the crested ibis in China increased after seven birds were rediscovered in Yang County in Shanxi Province in 1981 as a result of successful protection in the wild and artificial breeding (over 1,400 birds in 2009). Reintroduction (or release) of the crested ibis to the wild commenced from 2004, too. Considering dispersion of risk from epidemic of bird influenza, etc., artificial breeding and reintroduction were also implemented outside Yang County (such as Ningshan County in Shaanxi Province, Luoshan County in Henan Province, etc.). However, creation of environment for coexistence of people and the crested ibis was insufficient, for which information on habitat, measures to secure compatibility between protection of the crested ibis and rural development, and improved awareness of stakeholders on environment conservation were required. In addition, in Luoshan County in Henan Province, where raising and breeding of the crested ibis in captivity started in 2007, there was no experience of release so that development of a system to perform reintroduction was urgently needed.</p>				
Objectives of the Project	<p>The project aimed to provide the environment for the coexistence of people and the crested ibis in the target area<sup>1</sup> in China through (i) collection of environmental information (natural environment and social environment, including the crested ibis), (ii) development of a system to perform the release of the crested ibis into the wild, (iii) development of a model for community-participation-type projects, and (iv) improvement of stakeholders' awareness of nature conservation, including protection of the crested ibis, thereby contributing to promotion of the national environmental protection plan in China and implementation of the SATOYAMA Initiative through development and dissemination of a symbiotic model for people and the crested ibis in the target area and other related areas.</p> <ol style="list-style-type: none"> <li>Overall Goal: Contribute to the promotion of the national environmental protection plan in China and the implementation of the SATOYAMA Initiative through the development and dissemination of a symbiotic model for people and crested ibis in the target area and other related areas.</li> <li>Project Purpose: The environment for the coexistence of people and crested ibis is provided in the target area.</li> </ol>				
Activities of the Project	<ol style="list-style-type: none"> <li>Project Site: Yang and Ningshan Counties in Shaanxi Province, Luoshan County in Henan Province</li> <li>Main Activities: (i) Basic survey on natural environment and socio-economic conditions, policy recommendations on creation of local environment for coexistence of people and the crested ibis, development of a system to share the survey results; (ii) Preparation of environment for rearing and breeding, training in acclimatization, and reintroduction, monitoring of the crested ibis in the wild and sharing of the results, documentation of monitoring methods and preparation for compilation of manuals in future; (iii) Needs survey, feasibility study, and training on the model projects, implementation of the model projects, monitoring and evaluation, policy recommendations based on the evaluation; (iv) Planning, implementation and evaluation of environmental education, implementation of study tours, preparation of dissemination tools, organization of symposium, etc.</li> <li>Inputs (to carry out above activities)</li> </ol> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Japanese Side</p> <ol style="list-style-type: none"> <li>Experts: (long-term) 4 persons, (short-term) 2 persons</li> <li>Trainees Received: 28 persons</li> <li>Equipment: Materials for construction of acclimation cages, vehicles and equipment for monitoring</li> <li>Local Cost: Cost for hiring local assistants (8 persons)</li> </ol> </td> <td style="width: 50%; vertical-align: top;"> <p>Chinese Side</p> <ol style="list-style-type: none"> <li>Staff Allocated: 34 persons</li> <li>Land and Facilities: Project Office, etc.</li> <li>Local Cost: Construction cost for acclimation cages, cost for hiring an assistant and cost for operating and maintenance of the provided equipments.</li> </ol> </td> </tr> </table>			<p>Japanese Side</p> <ol style="list-style-type: none"> <li>Experts: (long-term) 4 persons, (short-term) 2 persons</li> <li>Trainees Received: 28 persons</li> <li>Equipment: Materials for construction of acclimation cages, vehicles and equipment for monitoring</li> <li>Local Cost: Cost for hiring local assistants (8 persons)</li> </ol>	<p>Chinese Side</p> <ol style="list-style-type: none"> <li>Staff Allocated: 34 persons</li> <li>Land and Facilities: Project Office, etc.</li> <li>Local Cost: Construction cost for acclimation cages, cost for hiring an assistant and cost for operating and maintenance of the provided equipments.</li> </ol>
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Project Period	September 2010 – September 2015	Project Cost	(ex-ante) 450 million yen, (actual) 479 million yen		
Implementing Agency	<p>Responsible organization: International Cooperation Department/State Forestry Administration (SFA); Wildlife Protection and Nature Reserve Management Division/SFA.          Implementing organization: National Bird Banding Center (NBBC)/ Research Institute of Forest Ecological Environment and Protection/ Chinese Academy of Forestry; Shanxi Provincial Forestry Department (PFD), Henan PFD; Management Office of Shanxi Hanzhong Crested Ibis National Nature Reserve (SHCINNR); Ningshan County Bureau of Forestry (CBF) in Shaanxi Province; Management Office of Dongzhai National Nature Reserve (DNNR).          *Names of SFA, Shaanxi PFD, and Henan PFD were changed to State Forestry and Grassland Administration, Shanxi Provincial Forestry Administration (PFA), and Henan PFA respectively in November 2018.</p>				
Cooperation Agency in Japan	Ministry of Environment				

**II. Result of the Evaluation**

<Special Perspectives Considered in the Ex-Post Evaluation>

- There is no description of the target year for the Overall Goal in the existing documents. In this ex-post evaluation, the target year shall be set to be 2018 based on the ex-ante evaluation sheet which states that ex-post evaluation shall be conducted in three years after project completion.
- The Overall Goal (“Contribute to the promotion of the national environmental protection plan in China and the implementation of the SATOYAMA

<sup>1</sup> Yang County and Ningshan County in Shanxi Province and Luoshan County in Henan Province.

Initiative through the development and dissemination of a symbiotic model for people and crested ibis in the target area and other related areas.”) targets both “the target area and other related areas; therefore, “other related areas” in the Indicators of the Overall Goal shall be interpreted as “the target area and other related areas”. In addition, judgement criteria of achievement level is not clear for Indicator 2 and Indicator 3 of the Overall Goal; therefore, whether the confirmed results are sufficient in light of the Overall Goal shall be confirmed with the grounds for judgment. Further, no Indicators were set to directly and specifically confirm the first part of the Overall Goal (i.e. Contribute to the promotion of the national environmental protection plan in China and the implementation of the SATOYAMA Initiative); therefore, whether the project has contributed to the promotion of the national environment protection plan in China and the implementation of the SATOYAMA Initiative shall be confirmed as supplementary information.

**1 Relevance**

<Consistency with the Development Policy of China at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the National 11th Five-Year Plan for Ecological Protection (2006-2010), which set forth creation of ecological reserves, integrated rural environment improvement, development of models, etc. and the Wildlife Protection Law (established in 1988 and promulgated in 1989) at the time of ex-ante evaluation and the National 12th Five-Year Plan for Environmental Protection (2011-2015), which set forth enhancement of biological diversity and the Wildlife Protection Law at the time of project completion.

<Consistency with the Development Needs of China at the Time of Ex-Ante Evaluation and Project Completion>

At the time of ex-ante evaluation, the project was consistent with development needs of China for creation of the environment for the coexistence of people and the crested ibis as described in “Background”. At the time of project completion, change in needs was not observed.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan-China Joint Crested Ibis Conservation Plan (2003) and the Japan’s ODA policy on “cooperation for dealing with global problems such as environmental problems” under the main development agenda of “realizing sustainable development” in the Economic Cooperation Plan for China (2001).

<Evaluation Result>

In light of the above, the relevance of the project is high.

**2 Effectiveness/Impact**

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the time of project completion. Although quantitative data on the satisfaction level of local people with the crested ibis protection and the model projects (e.g. organic/pesticide-free farming, waterway/winter paddy field restoration, etc.) was not available, the local people in the target villages for the model projects highly appreciated the model projects according to the interview survey to their representatives conducted by a third-party expert engaged in the crested ibis conservation (Indicator 1). Based on the survey results, the third-party expert concluded that the model projects contributed to overall improvement of symbiotic environment of people and the crested ibis (Indicator 2). In each county in the target area, meetings to exchange and report results of the model projects were held, in which stakeholders such as organizations involved in the crested ibis protection, agriculture, tourism, etc. discussed creation of the symbiotic environment between people and the crested ibis (Indicator 3). The project implementation report, including policy recommendations to support creation of the symbiotic environment between people and the crested ibis, was prepared and distributed to the relevant organizations, including decision makers (Indicator 4).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued to the time of ex-post evaluation. In the target villages, all the model projects have continued with most of them scaled-up. In each county in the target area, environmental education has continued using the materials developed in the project. According to the implementing agencies in the target area, local people have been continuously satisfied with the crested ibis protection and the model projects because ecological environment has been recovered and their income increased (see “other impacts” for details) due to expansion or continuation of organic/pesticide-free farming and waterway/winter paddy field restoration: as a result, the symbolic environment between people and the crested ibis improved by the project has continued and population of the crested ibis in the wild has been increasing. In each county in the target area, the implementing agencies have continued exchanges and discussions with the organizations involved in the model projects and environmental education.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal was achieved by the target year (2018) (judgment based on the four indicators and supplementary information being unverifiable, achieved, achieved, achieved, and achieved). Achievement status continued at the time of ex-post evaluation. After project completion, a related conservation policy, the Notice concerning Strengthening Crested Ibis Protection, was promulgated in 2016 in Luoshan County. Recommendations of the project may have been reflected in this policy: however, it was difficult to verify because, in general, many materials are referred in policy formulation and the names of the referred documents are not mentioned in the policy documents (Indicator 1). On the other hand, technical materials for reintroduction, monitoring etc. of the crested ibis developed in the project have been compiled into manuals, and the manuals or the technical materials have been referenced in the target area and three other release sites in China<sup>2</sup>. Reference status is considered sufficient since the manuals or the technical materials have been referenced in all of the six release sites in China (Indicator 2). Organic/pesticide-free farming and paddy field restoration introduced by the project have been not only continued in the target villages but also expanded to other villages in Yang and Ningshan Counties. Further, reintroduction and monitoring of the crested ibis, application of the model projects based on the local conditions, and environmental education have been implemented in the above three other sites with reference to the project. Reference status is considered sufficient because actions taken by the project have been referenced at all of the six crested ibis release sites in China (Indicator 3). On average, actions for the crested ibis conservation utilizing the results of the project have been presented at international events at least once a year (Indicator 4). Development and dissemination of the symbiotic model between people and the crested ibis in the target area and other related areas have led to increase of the population of the crested ibis in the wild, local participation to conservation of natural environment and maintenance of ecological environment, and reduction of chemical fertilizers and pesticides, which have contributed to promotion of the National Ecological Environment Protection 13th Five-Year Plan (2016-2020). It has also contributed to implementation of the SATOYAMA Initiative since new agricultural landscapes are being developed in the target area with a vision of promoting symbiosis between people and the nature,

<sup>2</sup> Tongchuan City and Baoji City in Shanxi Province, and Deqing County in Zhejiang Province.

with paddy fields as the core (Supplementary Information).

<Other Impacts at the time of Ex-post Evaluation>

Various positive impacts were observed. For example, a total of 100 crested ibises were released four times in Luoshan County between 2013 and 2017, using the techniques, facilities, and equipment of the project<sup>3</sup>. As for other areas, a total of 95 crested ibises were released in Tongchuan and Baoji Cities, and Deqing County between 2013 and 2014, utilizing the techniques and materials of the project. Expansion and continuation of the organic/pesticide-free farming introduced through the model projects have increased the income of the farmers involved<sup>4</sup>. The Collaborative Committee of Union for Crested Ibis Protection, consisting of the stakeholders in the country, was established in 2016 and its meetings are organized once a year by member organizations in order based on the experience of regular meetings among those concerned with the crested ibis conservation organized by the project. On the other hand, negative impacts have not been seen.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
(Project Purpose) The environment for the coexistence of people and crested ibis is provided in the target area.	1. At least 50% of the people in the target villages for the model projects are satisfied with the crested ibis protection and the participatory model projects by the relevant organizations overall.	Status of the Achievement: partially achieved (continued) (Project Completion) -The result of a third-party evaluation study conducted in the target villages <sup>5</sup> from November 2014 to March 2015 showed that the level of satisfaction of local people with the model projects was high. (Ex-post Evaluation) -According to the implementing agencies in the target area, the local people have been satisfied with the crested ibis protection and the model projects, which have been expanded or continued, because both income and ecological environment have been improved.
	2. A third-party expert involved in the crested ibis conservation judges that coexistent environment between people and crested ibis has been comprehensively improved in the target area.	Status of the Achievement: achieved (continued) (Project Completion) -According to the third-party evaluation study, the model projects were judged to have contributed to improvement of coexistent environment between people and crested ibis because the local people highly appreciated the model projects. (Ex-post Evaluation) -According to the implementing agencies in the target area, the coexistent environment between people and the crested ibis improved through the project have been continued as a result of expansion or continuation of the model projects, and the population of the crested ibis in the wild is increasing.
	3. Authorities in charge of the crested ibis protection, agriculture, and tourism, agricultural cooperative companies, managers of “farmhouse tourism”, tourist companies, educational institutions, private organizations, etc. discuss creation of the coexistence environment between people and the crested ibis by theme (e.g. promotion of organic farming, eco-tourism and environmental education, expansion of paddy fields/winter-flooded paddy fields etc.)	Status of the Achievement: achieved (continued) (Project Completion) -In each county in the target area, meetings to exchange or to report the results of the project were held between the authorities in charge of the crested ibis protection and the organizations involved in the model projects, in which creation of the coexistence environment between people and the crested ibis was discussed. (Ex-post Evaluation) -In each county in the target area, the exchanges have been continued between the authorities in charge of the crested ibis protection and the organizations involved in the model projects and environmental education.
	4. Recommendations on policies that support creation of local environment for coexistence of people and crested ibis are submitted to decision makers.	Status of the Achievement: achieved (continued) (Project Completion) -Policy recommendations were compiled as part of a summary of the project (the project implementation report) and presented and distributed to the related organizations, including decision makers, at the meeting to exchange the project results in September 2015.

<sup>3</sup> A cage for acclimatization of the crested ibis provided through collaboration with a Grant Assistance for Grassroots Human Security Project of the Embassy of Japan in China (“Project for Improvement of Living Environment through Nature Conservation in Luoshan County in Henan Province” (2013)) was utilized. (For details, please see Lessons Learned for JICA.)

<sup>4</sup> For example, in Caoba Village in Yang County in Shanxi Province, income of the organic pear growers was drastically increased because the price per kilogram of the organic pears introduced by the project was five to six times higher than the traditionally grown pears, and all the households (about 500) were growing the organic pears at the time of ex-post evaluation. In the village where pear cultivation dates back to several hundred years, the cultivation technology introduced by the project resulted in increase of the village-level income.

<sup>5</sup> A total of 8 villages (5 in Yang County, 2 in Ningshan County, and 1 in Luoshan County) are mentioned as the target villages in the existing materials. The number of villages surveyed by the third-party expert is not available, however. Indicator 1 was judged to be “partially achieved” since the required qualitative data on the degree of satisfaction (i.e. at least 50% of the people are satisfied) was not obtained.

(Overall Goal) Contribute to the promotion of the national environmental protection plan in China and the implementation of the SATOYAMA Initiative through the development and dissemination of a symbiotic model for people and crested ibis in the target area and other related areas.	1. Contents of recommendations of the project are reflected in the related conservation policies.	(Ex-post Evaluation) Not verifiable -In 2016, Luoshan County promulgated the Notice concerning Strengthening Crested Ibis Protection, but it was not possible to confirm whether the recommendations made by the project were reflected.
	2. Technical materials regarding reintroduction and monitoring of the crested ibis, data management etc. are manualized and referenced in other related areas.	(Ex-post Evaluation) achieved -Target area: Technical materials of the project have been compiled into manuals in Yang and Ningshan Counties, which have been referenced in the work. The technical materials have been also referenced in Luoshan County, which are planned to be manualized by 2020 based on the monitoring data. -Other related areas: The manuals have been referenced in Tongchuan and Baoji Cities and the technical materials have been referenced in Deqing County in reintroduction, monitoring, and data management.
	3. Actions in the target area are referenced by stakeholders in other related areas.	(Ex-post Evaluation) achieved -Target area: Organic farming and restoration of paddy fields introduced by the project have been disseminated beyond the target villages. -Other related areas: With reference to the actions in the target area, reintroduction, monitoring, and environmental education have been conducted in Tongchuan and Baoji Cities and Deqing County Further, environmental protection projects for rivers and wetlands, feeding ground of the crested ibis, have been implemented in Tongchuan and Baoji Cities, and organic farming has been implemented in Deqing County.
	4. Actions for the crested ibis conservation are presented at international events continuously at least once a year.	(Ex-post Evaluation) achieved -Actions for the crested ibis conservation, utilizing the results of the project, were presented at the international events once in 2016 (in Yang County in China), twice in 2018 (Yang County in China and Okinawa Prefecture in Japan), and once in 2019 (in Changnyeong, Korea).

Source: JICA documents; questionnaire and interview survey to the implementing agencies

### 3 Efficiency

Although the project period was within the plan (ratio against the plan: 100%), the project cost slightly exceeded the plan (ratio against the plan: 106%). The Outputs of the project were produced as planned. Therefore, the efficiency of the project is fair.

### 4 Sustainability

#### <Policy Aspect>

At the national level, biodiversity protection is set as a goal in the National Ecological Environment Protection 13th Five-Year Plan (2016-2020). At the target area level, Yang County is designated as SHCINNR, and the other two Counties have promulgated regulations regarding the crested ibis protection based on the Wildlife Protection Law.

#### <Institutional Aspect>

There is no major change in the organizational structures and roles of the implementing agencies. Although the quota of National Bird Branding Center and Management Office of SHCINNR is not available, the staff at the other implementing agencies are allocated according to the quota. All the implementing agencies stated that necessary staff were assigned because their works related to the protection of the crested ibis (including rehabilitation, monitoring, and data management) and the creation of a symbiotic environment for people and the crested ibis have been carried out without any problem. In the target area, exchanges and collaborations between the implementing agencies and the related organizations are continued for the continuation and dissemination of the model projects and environmental education.

Number of staff involved in protection of the crested ibis and promotion of environment creation for the coexistence of people and the crested ibis at the implementing agencies

Central level	Provincial level		Target Area		
National Bird Banding Center	Shanxi PFA	Henan PFA	Management Office of SHCINNR	Crested Ibis Management Station/Ningshan CBF	Crested Ibis Rearing and Breeding Station/Management Office of DNNR
2-3	1	3	55	4	10

Source: Questionnaire survey to each organization

#### <Technical Aspect>

The implementing agencies maintain the knowledge and techniques necessary to protect the crested ibis and create a symbiotic environment for people and the crested ibis. Most of the staff members trained in the project have continued to work at their respective organizations, and those who left the office handed over their duties related to the project to their successors. The relevant staff members carry out their work utilizing the knowledge and techniques accumulated in the project as well as their work in the past. They also use the technical materials developed in the project and/or the manuals compiled based on the technical materials for their work and training for new employees. As for the provided equipment, persons in charge are assigned; it is properly maintained and utilized.

#### <Financial Aspect>

The budget for protection of the crested ibis in the target area are allocated by the State Forestry and Grassland Administration. The implementing agencies stated that necessary budget, including maintenance of the provided equipment, has been secured, although detailed data is not available except for Luoshan County. Regarding the continuation and dissemination of the model projects, funds from the related organizations such as agricultural cooperatives companies and water resources bureaus are continuously available. In addition, funds from the Alashan SEE Foundation are also utilized in Yang County. It can be assumed that

Budget and expenditure for protection of the crested ibis at Luoshan County (Unit: 10 thousand yuan)

	2016	2017	2018
Overall budget and expenditure	45	90	60
-Feed 餌	44	49	53
-Chemical for disease prevention	1	1	1
-Repair of cages	4	40	0

Source: Management Office of DNNR

the necessary budget is secured or basically secured in the target area because the crested ibis protection, the model projects, and environmental education are continued and expanded; however, it is difficult to make a clear judgement because some detailed data is not available.

<Evaluation Result>

In light of the above, slight problems have been observed in terms of the financial aspect of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project achieved the Project Purpose of providing the environment for the coexistence of people and the crested ibis in the target area. The effects of the project have continued and the Overall Goal of contributing to the promotion of the national environmental protection plan in China and the implementation of the SATOYAMA Initiative through the development and dissemination of a symbiotic model for people and the crested ibis in the target area and other related areas is also achieved. Regarding the sustainability, slight problems have been observed in terms of the financial aspects (i.e. lack of detailed data to clearly judge financial sustainability), but no problems have been observed in terms of the policy, institutional, and technical aspects. As for the efficiency, the project cost slightly exceeded the plan. Considering all of the above points, this project is evaluated to be satisfactory.

### III. Recommendations & Lessons Learned

Lessons Learned for JICA:

- At the design stage of a technical cooperation project, which has a component of model projects for rural areas, including improvement of cultivation techniques of crops that are traditional sources of income at the design stage would lead to increase of income of local people and continuation and expansion of the model projects after the project completion.
- In the ex-post evaluation of the project, achievement status of one of the Indicators of the Overall Goal could not be confirmed with available information, including publicly available documents, and, therefore, evaluated to be “unverifiable”. JICA should make sure that Indicators for the Overall Goal of a technical cooperation project be verifiable with available information, including publicly available information when setting them at the design or implementation stage.
- As a result of collaboration between a Grant Assistance for Grassroots Human Security Project of the Embassy of Japan in China and the project, large cage for acclimatization of crested ibis has been provided to DNNR in Luoshan County. Provision of the large cage had a great impact on the local crested ibis protection activities because condition for releasing the crested ibis became ready and the released ibis have been living and breeding locally and grown into a group in which the population has increased steadily. Thus, it is important to consider collaboration with other projects/organizations to enhance effects of a project.



(1) Provided net at Crested Ibis Center in Yang County



(2) Restored waterway in Caihe Village in Shanxi Province