STUDY OF ETHNOBOTANY AND CONSERVATION atnDALEM AROUND KRATON YOGYAKARTA

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Abstract

Trees in nDalem around the Kraton Yogyakarta were planted with certain purposes. In the present, its existence will be determined by the utilization of the community around Nalem. The knowledge and understanding of conservation of a cultural heritage are interesting to studied. This study aims 1) to identify species of trees in the ndalem around the Kraton Yogyakarta and their use. 2) to knows about various conservation efforts by the community around the nDalemKraton Yogyakarta.

This research was conducted from March 2018. The criteria for nDalem are determined to have complete pavilion, pringgitan, and gandok. This research is a survey approach. Data is obtained through observation and depth interviews. Data analyze by consensus index/ fidelity level.

The results showed that SawoKecik(Manilkarakauki) becomes most importance tree in the eighteen nDalem around the Kraton Yogyakarta. Conservation efforts are derived from the perceptions of the people who live in nDalem around Kraton Yogyakarta. The form of conservation is still generally carried out such as watering, pruning, cleaning and fertilizing. Falling trees are replaced by the same type even though the number and placement not same anymore. There are no specific guidelines or rules for maintaining tree conservation throughout nDalem around kraton.

Keywords: Ethnobotany; nDalemKraton Yogyakarta; Conservation.
1. Introduction

Yogyakarta Sultan Palace has its own uniqueness. The uniqueness is in the form of building architecture, structuring, and selecting plants that have certain meanings. The palace buildings and the surrounding palace are designated as cultural heritage, including the trees. Trees with high philosophical and symbolic values should be preserved. Peoples around nDalem Kraton Yogyakarta have to uphold the values of Islam & local wisdom (Zuhriyah, 2013) in the utilization and preservation of trees. This is where ethnobotany and conservation play a role in studying the interactions between people and trees with their environment (Kunwar & Bussmann, 2008; Cotton CM. 1996).

The villagers around nDalem is influenced by outside culture and from the Sultan's Palace. This affects the differences in building use, environmental management, and tree care of nDalems. Trees can provide benefits while requiring action in an effort to preserve them. Changes have caused some kraton trees to be lost, cut down, or die. The utilization of the location and the transfer of ownership of nDalem buildings also contribute to the change or loss of certain trees. In order to support the utilization and conservation of trees in the palace around the palace, ethnobotany and conservation studies are based on the types of trees in the nDalem around the palace that still exist, and an understanding of their utilization and conservation needs to be done. This is an interesting thing to be explored further.

This research is important to be carried out to find out the perceptions of the people around the palace in the utilization of trees in the palace around the palace and their views on aspects of their conservation. This study wanted to find out the uses and conservation of trees in the nDalem around Kraton Yogyakarta. The purpose of this study was 1) to identify species of trees in the nDalem around Kraton Yogyakarta, 2) to find out the use of tree species in the nDalem around the Kraton Yogyakarta, and 3) to find out about tree conservation efforts in nDalem around the Kraton Yogyakarta.

2. Methods and Materials

The research included the nDalem condition survey, data collection, and data processing. The research activity was carried out in March 2018. The research was conducted at eighteen nDalem outside the Kraton Yogyakarta. Geographically the area around the Kraton Yogyakarta is located at E: 110°21′872′ - 110°21′786′ and S: 07°48′177′ - 07°48′754′. nDalem around Kraton is in the administrative area of nine districts, namely: Kraton, Ngampilan, Gedongtengen, Jetis, Danurejan, Mergangsan, Gondomanan, Mantrijeron,
Tegalrejo (Gupta, et al., 2007). Some of the data in this study are qualitative data concerning the use and preservation of trees by communities around the palace. For this reason, some data collection was also carried out through interviews and observations.

To obtain complete information used interview techniques. (depth interview) with the type of open-ended questions (Singarimbun& Effendi, 1995). Observation is conducted in a focused manner, the implementation is combined with interviews. In other words, observation notes only contain facts without opinions. In observations, recordings, double checks and cross checks were conducted between one observer and another observer. The effort to approach the form of objectivity is also connected to get a complete, precise, and deep record.

Analysis of tree utilization is done by calculating consensus index (IC) or fidelity level. This index is used for ethnobotany analysis which shows the value of the importance of each type of tree in the ndalem around the Kraton Yogyakarta. The consensus index value is known by the equation:

$$FL = \frac{IP}{IU} \times 100\%$$

(Hoffman & Timothy, 2007)

Information:
FL: Calculate the importance of species for a particular reason
IP: Number of informants who mentioned species that were utilized
IU: The total number of informants who mentioned the species for many use

3. Results

The research succeeded in accessing 18 nDalem around the Kraton Yogyakarta, including: NdalemNdalemDanurejan located on the east of JalanMalioboro, NdalemSosromenduran in the Sosromenduran Village area, GedungTengen District, NdalemKaneman on KadipatenKidul street, NdalemMangkuyudan*) on JalanMangkuyudan, NdalemPurboseputran*) located on Suryodiningratan street, NdalemBrongtodingratan*) located on Suryodiningratan road, NdalemPujakusumaan located in Mergangsan sub-district, NdalemJayaningratan located on Dagen road, NdalemPurbayan on Polowijan road, NdalemPanembahan*) on PangeranMangkurat road, NdalemDanunegaran**) is located on MayjenSutoyo’s street, NdalemTejokusuman**) is on Wahid Hasyim road, NdalemSuryonegaran is on the road of Mrs. Ruswo, NdalemPurwodiningratan*) located on Purwodiningratan road, NdalemSuryobrangtan*) is in Ngampilan Village,
NdalemCondronegaran*) is on Prapancaroad, NdalemBintaranbedara on Bintar an kidul, and NdalemTimuran*) are on Parangtritis road. In addition there are 38 courts that have not been accessed due to different conditions and situations. Only two Ndalem conserved(**), namely ndalemDanunegaran and ndalemTejokusuman (Table 1). There are seven buildings that have completely changed both the building and the plants/ trees*).

Tabel 1. Main Trees in 18 nDalem around Kraton Yogyakarta

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notes : 1) kepel, 2) beringin; 3) sawokecik, 4) filisium/glodogan, 5) tanjung, 6) pisang, 7) ketepengdankeben, 8) mangga, 9) pace/mengkudu, 10) belimbingwuluh, 11) camara, 12) jambudersono, jambubiji&jambu air 13) palem, pinang, 14) kantil, 15) lain-lain (jenis pohon lain)

4. Discussion
Since the Kraton Yogyakarta was under the rule of Sultan HamengkuBuwana VII, has experienced various developments and changes, both physically and non-physically. In addition, Yogyakarta began to recognize electricity, especially in the palace and elite settlements (Kutoyo, 1996; Ricklefs, 1998). Changes since the Sultan HamengkuBuwana VII to Sultan HamengkuBuwana X had a strong influence on the Yogyakarta Palace. In line with Tamalene (2016) changes in the life order and its use have an effect on the conservation of an ethnicity. The development of the palace before the Sabdatama and Sabdaraja had influenced. The physical changes the concept of preservation and the philosophy of the tree. The development and changes in spatial and tree settings in the Kraton Yogyakarta implies a growing awareness, in line with the needs and development of the age (Yudoyono, 2017).

Most of the palace around the palace still functions as a place to live, art gallery, hotels, schools, and offices. nDalem owners generally have switched hands or are managed by third parties as employees and guards. Some nDalem have entered cultural heritage (Kurniawan & Sadali, 2015), others nDalem have become hotels (nDalemBrongtodingratan and nDalemSosrowijayan), campuses / schools (nDalemYudonegaran, nDalemSutodirjan, nDalemMangunjayan, nDalemMangkukuyuyan, nDalemSuryodiningratan, nDalemMangkukusuman, nDalemMangkukusuman, nDalemPurboseputran) museums (nDalemBrontokusuman, nDalemTegalrejo, and nDalemCondrokiran), offices (nDalemTejakusuman, nDalemNgadinegaran, and nDalemDanurejan), and even disappeared into a village (nDalemSuryamentaraman, nDalemNgadiwinatan, nDalemNotoyudan, nDalemJogonegaran, nDalemTimuran, nDalemSuryabragtang, nDalemRonodigdayan, nDalemBausasran, nDalemSingosaren, nDalemSingojayan, nDalemKranggan) (Gupta, et al., 2007). The only nDalem building that has been finished is left only the gate or wall. It cannot be expected with a tree that used to exist.

Of course the kampong and nDalem around the Kraton neighborhood line also need attention. The existence of old trees in nDalem or villages around the palace should get attention. Trees that are felled or felled for any reason must be replaced with the same type. Care and maintenance of tree branches so that they are not at risk for public facilities and the surrounding community is a manifestation of its conservation efforts. This is also explained in Muhaimin (2015). SawoKecik (Manilkarakauki) plants are the type of tree that has the highest consensus index. The existence of M. kauki is always found in almost all ndalem. This tree that is identified with sarwobecik means that it is very good (Santosa, 2000; Saputro, C.A. & Hasballah, 2015).
In Yogyakarta, this plant is a sign that people who plant it are courtiers. This is not too surprising compared to the mango tree which turned out to have the second highest consensus index. The most common trees in almost all houses are the types that most often appear and are used in the palace around the palace. Ethnobotany roles and opportunities in the present are faced with the times and are functional (Purwanto, 1999). Other palace trees such as the beringin tree and kepel actually have less meaning in their presence in the palace around the palace. Efforts to maintain and utilize trees around Ndalem are still limited by residents or employees in the Ndalem and there are no specific guidelines or rules in their conservation.

The conclusion of this research find 53 species of trees in Ndalem around Kraton Yogyakarta. The usage of those plant generally for consumtion, medicine, and coverage. Community participation and changes in the function of the building did not change the conservation efforts of the trees in the area around the Sultan's Palace. The community views the existence of trees around Ndalem very important, needs to be preserved, and preserved. The form of community participation includes maintaining cleanliness, caring for it simple, replacing with the same type even though the patterns and numbers are different.

5. Acknowledgement

We should like to thank the LPPM UAD. Thank you to all those who helped carry out this research, especially the owner of Ndalem around the Kraton Yogyakarta, and all the ethnobiology students in Biology Education FKIP UAD

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