

# THE ECOLOGICAL INSIGHT OF THE *BUNGA' LALANG* RICE FARMING TRADITION IN LUWU SOCIETY, SOUTH SULAWESI, INDONESIA

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## ABSTRACT

The ecological insights of local farming traditions have the potential to be adapted to modern agricultural practices. The article presents an exploration of the ecological insights of the *bunga' lalang* rice farming tradition in the Luwu society, South Sulawesi, Indonesia. Four rituals of the tradition were observed directly during their performance, followed by interviews with eleven figures including the ritual masters. Each ritual of the *bunga' lalang* tradition was treated as a discourse and the meanings of the biological elements are extracted to generate ecological knowledge that is biologically logical and compatible with modern scientific knowledge in rice farming.

KEYWORDS: ecological insights • *bunga' lalang* • rice farming tradition • Luwu society • Indonesia

## INTRODUCTION

Indigenous, traditional or local knowledge is taken to mean knowledge and know-how unique to a given society or culture (Magni 2016: 5). One of its subsets is ecological knowledge. Indigenous, local, and traditional ecological knowledge have been thoroughly explored because of the high level of experience-based ecological information that can be obtained (see for example Siahaya et al. 2016; Takakura 2018; Markkula et al. 2019). In addition, such ecological knowledge has been adapted to scientific enquiry and environmental sustainability (Weiner 2017; Merten et al. 2020). Among the potential sources of ecological knowledge are tradition and ritual. Ritual is a form of tradition and usually entailed in a tradition. According to Mark Cherry (2012: 54),

traditional rituals were (and frequently are) lived experiential practices, interacting with reality in facets beyond the ability of academic discursive analysis to conceptualize. Rituals embody canonical understandings regarding the nature and meaning of the cosmos and of man's place within it.

Accordingly, considering its form and field, rice farming traditional rituals contain information and insights into the ecological/natural environments in which they are

performed. Unfortunately, research on rice farming traditions have mainly investigated the existence and wisdom values of the tradition without exploring the ecological insights of the tradition.

Nammon Yoo-In (2011) explored the persistence of and changes in the ritual of Calling the Rice Goddess at Ayyuthaya, Thailand, through field research. In a similar way, Saavedra Mantikayan and Esmael Abas (2015) documented farming rituals in Magindanaw, in the Philippines, to analyse the rationale of the practice and determine what factors led to the persistence of the rituals. Karunia Puji Hastuti and Dwiyo Sumarmi (2017) also researched the farming rituals performed by the Banjar people in Indonesia. Muhammad Arifin and Abdul Manan (2018) probed the essence of the *khanduri blang* ritual<sup>1</sup> in Aceh, Indonesia, including the reasons why people still perform it, using a socio-anthropological approach. Ni Wayan Sartini (2018) attempted to reveal the local wisdom in the rice farming rituals on Bali in Indonesia by employing the ethnographic method. The latter study has already revealed the ecological wisdom of traditional rice farming rituals but has not been specific on the ecological knowledge therein.

The *bunga' lalang* tradition, as the focus of this current study, is a series of practices and rituals performed as part of Luwu rice farming activity, South Sulawesi Province, Indonesia. In the past, each village in the Luwu area had a ritual master appointed to be responsible for the *bunga' lalang* tradition, although currently few villages formally have a ritual master. Concomitantly, the existence of the tradition is now threatened by modern practice and is claimed to be contrary to religious teaching. The *bunga' lalang* tradition is held regularly in some villages because the farmers believe it brings benefits, including ecological, although performance is not formally publicised, or performance is even disguised by the farmers.

This study aims to explore the ecological insights of the *bunga' lalang* rice farming tradition by observing four rituals that are part of the tradition and then interviewing 11 people including the ritual masters. The interviewees were acknowledged and recommended by local governments. Each ritual is analysed as a discourse that contains both the physical aspect of the ritual and the verbal. The rituals' discourses were extracted by identifying the biological elements (plants, animals, micro-organisms, humans, and their ecosystems). The results of the extraction were developed into ecological meanings in consultation with the interviewees. The ecological meanings were then compared with scientific facts to generate ecological insights that could become an effort to preserve and promote the tradition, along with its ecological information, as well as to conserve the environment in which the tradition exists. "If a discourse is beneficial to protect the ecosystems that life depends on, it needs to be promoted" (Stibbe 2015: 2). This is very similar to the concern that anthropologists and ethnologists have to describe local people's activities, knowledge and traditions (see, for example, Kocurek 2013; Price and Palis 2016; Lea 2018; Hasyim and Muda 2019).

## LWU SOCIETY AND THE *BUNGA' LALANG* TRADITION

Luwu society refers to the people of Luwu who 'own' the *bunga' lalang* rice farming tradition. George Junus Aditjondro (2006: 5) claimed that the people of Luwu form a

particular ethnolinguistic group rather than being a sub-group of Buginese, the biggest ethnic group in South Sulawesi. Unfortunately, in many government documents, Luwu is not mentioned as one of the tribes in South Sulawesi Province. Thus, in this study, the term Luwu society is used instead of ethnic Luwu. However, the term, and tradition, of *bunga' lalang* can be considered a feature of Luwu society that distinguishes it from neighbouring societies or ethnic groups. Luwu society can be considered modern while maintaining many cultural traditions.

The land in which Luwu society is located is called Tana Luwu. This sociocultural term is also not included in government or other formal nomenclature. Tana Luwu is formally divided into three regencies and one administrative city (Luwu, Luwu Utara, Luwu Timur, and the city of Palopo). Tana Luwu used to be a very fertile land with paddy (rice plant) and sago as well as producing a good quality of iron (Caldwell and Bulbeck 2000: 11). The highland in Tana Luwu is used for common plantation, and coffee and tobacco plantation; while the lowland is used for rice fields, corn and other secondary crops, as well as sago forest, palm oil, and cocoa plantation (Pawiloy 2002: 11–12). Tana Luwu is well known for its agricultural fields.

Out of the very wide area of Tana Luwu, the location of this study was determined deliberately to be in Luwu Regency. This is the most representative area since *bunga' lalang* is, and was, mainly performed here. The area of Luwu Regency is about 3,000 km<sup>2</sup> and consists of 22 districts and 227 villages (BPS Kab. Luwu 2017: 4). The population was around 353,277 in 2016, 66 percent of whom work in the agriculture sector (ibid.: 55). 90 percent of the land in Luwu Regency is used for agriculture, 26 percent of which is given over to rice farming: paddy is the largest food crop commodity (ibid.: 123).

There is a lack of prior description of the *bunga' lalang* tradition. Literally, *bunga' lalang* means 'path opener'.<sup>2</sup> The term originally referred to a skilled person, a ritual master, who determined the start of the cultivation season and lead the farmers at every stage of farming from ploughing to harvest. The term *bunga' lalang* has come to refer to the whole rice farming tradition in Luwu, i.e. all of the activities, practices and rituals led by the ritual master.

A short explanation of *bunga' lalang* is given in the *Encyclopedia of Luwu Culture* (Anwar 2007: 79):

*Bunga' lalang* is a person who has good knowledge of rice planting. He is the first to go to the rice field during the planting season. *Bunga' lalang* knows the good time to plant rice, the rainy time, the proliferating time of mice, etc.

A description of *bunga' lalang* in the past (which is given by a villager in Luwu) is provided as an example of a descriptive text in the Tae' language (Ibrahim 2002: 70).

The mantra or verbal part of *bunga' lalang* is always in the Tae' language, which also distinguishes *bunga' lalang* from other agricultural traditions. The number of Tae' speakers is 250,000 and increasing (Lewis 2009 [1951]: 1). It is used from Larompong district in Luwu Regency to Masamba in Luwu Utara with some other scattered pockets (ibid.). Tae' is still actively used orally, but not written. The language with its several dialects is relevant for this study since each *bunga' lalang* ritual tradition is analysed here as a discourse. Many special features of Tae' also contribute to the understanding of the *bunga' lalang* tradition (Idawati et al. 2016: 491).

### STARTING TO GO TO THE RICEFIELD (*MAPPAMMULA TA'PA*)<sup>3</sup>

Among the practices and stages of rice farming, the *mappammula ta'pa* ritual is the most commonly used part of the *bunga' lalang* tradition. It is often said that farmers in a village cannot start to cultivate the rice field if the ritual master has not performed *mappammula ta'pa*. All the practices of the *bunga' lalang* tradition are preferably performed in the rice field that is hereditary to the ritual master (*tempe' bunga' lalang*). The ritual may also be performed in other rice fields if a discussion in the village has decided so. Based on my fieldwork, a description of the ritual is as follows:

The ritual master chooses a spot in the rice field. He stands, looks down at the soil and whispers: “Kum is your name who is in the land, Kim is your name who is in the sky; Kum begins, Kum is begun, made by Allah the Most High.”<sup>4</sup> Then, by whispering “In the name of Allah, the Most Gracious, the Most Merciful”, he hoes the soil and turns to the right away from his body and looks at the sky. He repeats this three times. (FM: 2018)



*Photo 1. The ritual master looks at the sky during mappammula ta'pa. Photo by the author.*

The environmental context consists of biological elements, which coexist, are collective, interactive, and interdependent with human life. One biological element is the rice field – the place setting for the ritual. Other elements are the soil in the rice field and

the sky – the space above the earth, connected to sunshine and rain, which are essential for farming. Paddy plants are free from shade (Wahab et al. 2017: 5), being directly sheltered by the sky.

The ritual rice field at the time of *mappammula ta'pa* has the same physical characteristics as other rice fields in the village. This fact is well known by farmers who interact with the rice field and its soil almost every day. It was grassy as any other rice field before ploughing. The soil of the rice field was brown, clay-like, and a bit dry on the surface. Most rice field soils in the area provide a limited amount of nutrition to the crop (IRRI 2015: 15). The bright sky at around 10 AM is ideal for ploughing the soil. Thus, there is no particular ecological meaning added to the three elements, except the explanation of the ecological parameters (i.e. coexistence, collectivity, interactivity, and interdependency). It is also important to notice that the verbal text only mentions the land and the sky.

#### STARTING TO PLANT THE PADDY (*MAPPAMMULA MANTANANG*)

The next phase of the ritual is planting – *mappammula mantanang*. Paddy planting methods have changed over time. In general, there are two methods of planting, indirect and direct. Indirect planting consists of four steps: soaking the seeds, sowing the seeds, rooting up the buds, and planting them. Direct planting, in which the seeds are directly planted after soaking, is now preferred. The way to plant the seeds is also varied: either sowing the seeds, putting the seeds in holes made by a wooden stick, or spreading the seeds using a modified pipe called a drum seeder. The latter method is the most recent.

According to tradition, a ritual master performs a symbolic start for every step of planting. When he has finished *mappammula mantanang*, other farmers and villagers start to plant the seeds. Villagers usually work in rice fields by mutual assistance, although a ritual master can be called to start planting in the rice fields. Based on observation, the ritual master performed *mappammula mantanang* ritual by sowing some seeds in the ricefield (FM: 2018). Then, another person helped him to spread the seeds using a drum seeder. The time of *mappammula mantanang* is determined in a discussion forum and the ritual is described below.

Before the seeds are brought from home to the rice field, the ritual master whispers to them: “I move your family, [in] a hundred nights I promise you, you will come back here.” Next, the ritual master stands in the corner of the rice field. He looks around from right to left twice. He takes the paddy seeds with his right hand and whispers: “Kum is your name who is in the land, Kim is your name who is in the sky, *accing* is your name – paddy, since you descend to this world, you are named *sawe manurung*.”<sup>5</sup> He continues to whisper: “I plant you seed, so you grow, bear fruit, fill, being cared for by the followers of the Prophet Muhammad, being used to worship Allah the Most High.” Then, after a couple of seconds, he whispers again: “Kum plants, Kum is planted, fills what is planted, filled are they who plant. The blessing of Allah the only One.” Whispering “In the name of Allah, the Most Gracious, the Most Merciful”, he sows the seeds in seven spots. (FM: 2018)



Photo 2. The ritual master sows the seeds. Photo by the author.

There are two biological elements in the non-verbal text – the rice field and the seeds. Verbally the biological elements mentioned are the land, the sky, the seed, and the paddy. Two clauses explain the paddy seeds and, thus, contain biological meaning. They are “a hundred nights I promise you” and “I plant you seed so you grow, become full”.

The rice field during the practice of *mappammula mantanang* is relatively flat and damp, which is the standard condition of the rice field when direct planting is used. Soaking the rice seeds for two days is also standard practice for direct planting. These standards are based on the guidance for direct planting (Zarwazi et al. 2015: 3–4).

The paddy seeds are taken from paddy grains/unhulled paddy/unhusked rice (Suharna 2013: 16). Varieties of paddy seeds are now provided by the government to be chosen by the farmers based on the condition of their land (ibid.: 13). The variety of paddy chosen (and which was used in the *mappammula mantanang* ritual) was *ciherang*. Since the paddy seeds are taken from the paddy grains, it can be said that the physical embodiment of paddy seeds are the same as paddy grains.

The farmers have a high level of interdependency with the paddy seeds since the success of the rice farming activity, their main work, is based on the quality of the paddy seeds and their future physical results, i.e. paddy grains. The similar physical embodiment also, the verbal clause “[in] a hundred nights I promise you” shows the average time that the paddy seeds need to become paddy grains. The short duration of paddy plants from planting to harvesting is 100–120 days (IRRI 2015: 3).

Then, the clauses of “I plant you seed, so you grow, bear fruit, fill” show the basic stages from paddy seed to paddy grain: growth, reproductive, and filling (ibid.). To sum up, all the ecological knowledge in *mappammula mantanang* ritual is comparable with the scientific knowledge of rice farming.

## MAKING THE PADDY GRAINS FILL (*MAPPANGNGISSI*)

*Mappangngissi* is a conditional ritual performed by a ritual master sometime after the paddy plants start to bear grains. *Mappangngissi* is done if the paddy seems not to be filling: if the paddy flowers bloom but there is no change a week later, farmers call for a ritual master who will perform *mappangngissi*. This is a special treatment that should not be done ineptly. A remedy or a cure called *palling* will be given to the paddy plants. The remedies are varied and complimentary and can be substituted for one another: the egg of a local chicken, a beehive, coconut oil or earthworm excrement can be used, along with soil from the rice field. Earthworm excrement is well known to Luwu farmers as a remedy to help paddy grain to fill (Anwar 2007: 222).

The performance of *mappangngissi* is taught by the ancestors and although it appears somewhat irrational it is still believed and applied. An informant revealed that *mappangngissi* is *makruh* (an Islamic term for something that yields merit when it is avoided) (FM: 2018). When *mappangngissi* is performed toward paddy which has already filled, the paddy will suffer. It can be implied that we never really know the condition of the plants and we cannot change the condition immediately. The *mappangngissi* ritual as performed in the chosen rice fields is presented below.



Photo 3. The ritual master sticks the remedy on the paddy. Photo by the author.

The ritual master stands in the corner of the ritual rice field and looks around the rice field area. He sits and chooses one paddy plant with a female flower. He wipes the plant off and whispers: “*Accing* is your name – paddy, since you descend to this world, you are named *sawe manurung*; come here in your settled place, your dwelling home, do not go out, do not go away, settle yourself, inspire yourself.” He takes the remedy, which is a piece of beehive mixed with some soil from the rice field. He whispers: “I intend this, I take [it] as a filling remedy for the paddy.” He holds the

remedy on the tip of the paddy fruit and whispers: “*Lasauda, lasalinri*,”<sup>6</sup> ascend to fill, you are filled by an angel, filled by Allah.” Whispering, “Allah is the Greatest, Allah is the Greatest”, he sticks the remedy to the tip of the female flower, blows and releases it. (FM: 2018)

Biological elements in the non-verbal text of the discourse are the general rice field area, the chosen ritual rice field, paddy plants, the beehive, the soil from the rice field, and the female paddy flower. The only biological element mentioned in the verbal text is the paddy. These biological elements have a particular explanation of their ecological parameters in their relations to the farmers, although some of them are symbolic and benefit from further explanation.

The paddy growth in the rice field area was fairly even and average in height, except that the rice field chosen for rituals was slightly taller and more yellow because it had been planted first. The informants said that all other rice fields in the area had been planted at the same time (FM: 2017). The paddy should be planted at the same time as the neighbour’s (or within a two-week window) to minimise disease or pest on individual fields (IRRI 2015: 19). This shows how the *bunga’ lalang* tradition considers the ecological aspect of planting.

The soil of the rice field was observed to be very wet. From panicle initiation until the grain fills, the rice field should always be wet or irrigated (Suharna 2013: 32). There were flowers on the paddy plants that already looked like fruit. According to scientific knowledge of rice planting, this phase is called heading, i.e. the emergence of the panicle and flower branches (IRRI 2014: 119). This phase is the beginning of the filling of the grain and occurs within about 60–70 days of planting (IRRI 2015: 3) being biologically suitable for the *mappangngissi* ritual.

In the *mappangngissi* ritual, a female flower is chosen to be filled. Based on the informants’ explanation, the female paddy flower has parallel-coupled grain flowers throughout the flower branch (FM: 2018). In scientific literature, there is no explanation that a female flower has parallel-coupled grain. The spikelet is the basic unit of the rice flower which will develop to be paddy grain (IRRI 2014: 182). An empty spikelet is a spikelet in which the grains have not filled at maturity (ibid: 102), the *mappangngissi* ritual is performed to overcome this problem.

The importance of the paddy plant for the farmers is high because having specific paddy and flower conditions during the heading phase is crucial for a good harvest. Due to farmers’ contact with rice fields and the soil, it is fair to describe the relationship as co-dependent, collective, and an interaction, as discussed earlier.

The beehive that was mixed with the soil of the rice field is a remedy for the paddy flower. Farmers have only a rare connection to beehives, their interdependency is also not high because they are only used in particular situations such as medication or in ritual.

#### STARTING TO CUT OR HARVEST THE PADDY (MAPPAMMULA MARRI’TA/[MI]PARE)

There are several terms for paddy harvesting, for example *marri’ta* means ‘cut’ and *mipare* means ‘do the paddy’.<sup>7</sup> In the past, a sickle (*kandao*) or a traditional tool with a

bamboo blade called a *rangkapang* was used to cut the paddy.<sup>8</sup> Today, the ritual master only uses a sickle to start cutting the paddy symbolically. The rest of the paddy is cut using a combine harvester, a machine that cuts the paddy and threshes the grain at the same time (Zarwazi et al. 2015: 10).

The ritual master performs the *mappamula pare* ritual not long after *mappangngissi* ritual. When the paddy is ripe, the ritual master starts to cut the paddy plants in his rice field first. The other farmers come after him to cut their paddy, although many of them ask him to start the cutting in their rice fields as well. When the farmers asked the ritual master to perform the *mappammula mipare* in their rice fields, he came before the combine harvester arrived. The ritual of *mappammula mipare* is presented below.



Photo 4. The rice field is ready to be harvested. The location for *mappammula mipare*. Photo by the author.

The ritual master sits at the edge of the rice field. He chooses one female paddy plant with female and male fruits and two stand leaves. He binds the other leaves around the paddy stem. Then he caresses the fruits and whispers: “Kum is your name who is in the land, Kim is your name who is in the sky; *pambunga* is your name – female paddy, since you descend to this world, your name has been *indo’ samadenna*.”<sup>9</sup> He stands up. He looks around from right to left twice. He sits down again. He holds the paddy with two hands and whispers: “It is not your soul that I cut, it is not your body that I cut, it is in between your soul and your body that I cut.” He holds the paddy by its neck with his left hand and takes a sickle with his right hand, then whispers: “Kum cut, Kum is used to cut, Kum is cut. The blessing of Allah the only One and the Prophet Muhammad.” After being quiet for a while, he cuts the paddy in the middle of its upper stem whispering: “Allah is the Greatest, Allah is the Greatest.” He plants the cut part near the remaining part of the paddy. He covers the tip of the remaining part with the soil of the rice field. (FM: 2017–2018)

The relevant biological elements included in the non-verbal text are the rice field, paddy plant, female parent with its specifications, and the soil of the rice field. The biological elements in the verbal part are land, sky, and female paddy. In the rice field, the paddy fruits are already ripe and ready to be harvested. The ricefield looked like a yellow carpet with white cloths set up here and there to chase away the birds. In the case of direct planting, the harvest is done when 95% of the paddy grain has become yellow (Zarwazi et al. 2015: 10). This biological condition at the end of the grain filling and ripening stage is called the maturity phase (IRRI 2015: 3). For the farmers, the maturity phase is the biological condition that they are aiming for as it represents successful rice farming.

There is no biological reason behind the ritual master choosing paddy with female and male fruits and two stand leaves for the symbolic cutting, although he gave a cultural reason for this. The female parent contributes its egg in a cross shape (IRRI 2014: 107). The female paddy parent has both female and male flowers which then produce grain, although there is no so-called female or male fruit. The couple of female and male flowers in a female parent are called a perfect flower or panicle. The stand leaf of the paddy is called flag leaf; it is the uppermost leaf originating just below the panicle base (ibid: 109). The flag leaf produces the photosynthesis necessary for the growth of the rice plant and the panicles (ibid.: 154). The other leaves bound by the ritual master are all leaves, except the couple of flag leaves that originate much lower than the panicle base, most of which have turned brown. In the *mappammula mipare* ritual, the paddy is cut in the middle of its upper stem. Biologically, the upper stem is the leaf sheath where the stem is enclosed by the leaf originating from the node (ibid.: 133). So, the area cut by the ritual master is the middle of the leaf sheath.<sup>10</sup>

The neck of the paddy is mentioned when the ritual master holds it with his left hand when cutting the paddy with his right hand. Biologically, that part is known as the collar, i.e. the joint between the leaf sheath and the leaf blade (ibid.: 86); the leaf blade can be in the form of a flag leaf. The collar is located just below the panicle base in which the flag leaves originate. These scientific explanations show that the paddy chosen to be cut in the ritual is the one with prime specifications. This could be the biological reason for choosing the paddy. The explanations also reveal the ample knowledge of the ritual master and Luwu society in general about the biological parts of paddy.

The condition of the rice field soil observed in the *mappammula mipare* ritual was rather dry. It is the standard condition of the soil at harvest time. Around 10 to 15 days before the paddy is harvested, the rice field should be dried (IRRI 2015: 32). The importance of the soil to the farmers is always high, with the condition varying at each stage.

## THE ECOLOGICAL INSIGHT OF THE *BUNGA' LALANG* TRADITION

The eco-ethno-discourse analysis in this study enables us to generate ecological insights from traditional rice farming rituals in the *bunga' lalang* tradition. The analysis proves the statement by Cherry (2012: 54) that traditional rituals embody canonical understanding of nature and the environment. The environmental representation in a tradition or ritual reveals the ecological insight of the society that possesses the tradition. The ecological insight of the *bunga' lalang* tradition in the form of ecological knowledge is generated from the ecological meaning of the biological elements that exist in the four rituals.

The *bunga' lalang* tradition reveals seven types of Luwu society ecological knowledge. 1) The standard agricultural conditions required for a good harvest, such as the soil, the water level at different stages of planting, and the paddy seeds used for direct planting. Local agricultural knowledge is crucial for farmers in every vernacular culture (see Takakura 2018 for description farmers of Yamamoto, Japan, who also have prescriptive ecological knowledge of the relations of soil, water supply, sunshine, and the time frame available for rice production). 2) The basic stages of paddy growth or rice planting (from paddy seeds to paddy grains), the duration of each stage and the physical characteristics of the paddy at each stage. 3) The ecologically right time to start each stage of rice planting and perform the associated *bunga' lalang* ritual. 4) The necessity of planting and cutting all the paddy plants in one rice field area concurrently. 5) The kinds and characteristics of paddy plants (for example female paddy plant). In the *mappammula mipare* ritual, there is a special trait of the paddy cut symbolically. As with the harvest ceremony of Banjarese, the paddy chosen to be harvested first is the one with two stalks facing each other (Hastuti and Sumarmi 2017). 6) The parts of the paddy plants and their logical local names and terms. 7) The occurrences of paddy plant growth, such as unfilled grain, reflected through the *mappangngissi* ritual. The rituals for the complete development of rice grains which exist in Magindanawn (Mantikayan and Abas 2015), in Bali (Sartini 2018), and in Pangkep (Hasyim and Muda 2019) reflect the same ecological information.

The ecological insight of the *bunga' lalang* tradition is fruitful since it is an evidenced support system for agricultural activity. The ecological knowledge of the *bunga' lalang* tradition can be said to be biologically logical and compatible with the modern scientific knowledge of rice farming based on information from the Indonesian Agricultural Research and Development Board (Suharna 2013; Zarwazi et al. 2015; Wahab et al. 2017) and International Rice Research Institute (IRRI). It is reasonable to adapt this traditional knowledge to modern practice, or at least to take it into consideration at the local level. Much ecological knowledge within the *bunga' lalang* tradition is similar to that of other rice farming traditions and rituals in other places or countries.

Apart from the similarities in the ecological insights of many rice farming traditions, the *bunga' lalang* tradition contains many other distinctive ecological details that have been explored through this study. These insights, which are unique to Luwu society, can help in identifying the Luwu as an ethnic group. Thus, the tradition needs to be preserved, with necessary adjustments, and supported by all parties in society, as well as being studied further collaboratively and with a finer focus.

## NOTES

1 *Khanduri Blang* is a ritual performed before starting to cultivate the rice field to protect the rice when it grows.

2 In the Tae' language *bunga'* means '(the) first' and *lalang* means 'path/way'.

3 *Mappammula* means 'start' and *ta'pa* literally means 'arrive on a land', referring to the beginning of cultivation in a rice field.

4 Kum is the name of the spirit of the land and Kim is the name of the spirit in the sky.

5 *Accing* is the name of paddy in heaven, and means 'clean', while *sawe manurung* is the name of paddy in the world, meaning 'the one who descends and proliferates'.

6 The vocatives *lasahuda*, *lasalinri* refer to the male and female spirit of the plant in general.

7 In the *Encyclopedia of Luwu Culture*, the ritual of *mappammula mipare* is called *mappammula mingngala* (Anwar 2007: 222).

8 Thus, the other terms for paddy harvesting are *makkandao* (use *kandao*) and *marrangkapang* (use *rangkapang*).

9 The name of the female paddy parent in heaven is *pambunga* while its name in the world is *indo' samadenna*. The female parent is notified because the female plant will be cut during the ritual.

10 The Luwu people call that area *lolona to' pare* 'the navel of the paddy'.

## SOURCES

FM = The author's fieldwork materials were collected from October 2017 to April 2018 through observation of the performance of the tradition and through interviews with the people involved. The fieldwork was conducted with the license of the Integrated Service Board of the Luwu Regency. The materials are in the author's possession.

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