

(2) Farming Activities

Lombok Island

Depending on the availability of water, cropping pattern changes as follows; i) two time paddy in rainy and dry seasons and one time palawija in dry season, ii) one time paddy in rainy season and two time palawija in dry season, iii) one time paddy in rainy season and palawija in dry season, and iv) one time paddy as well as palawija in rainy season. Representative palawija crops are maize, tobacco, beans (peanuts, soybeans, and red onion etc.) . In dryer area, where agriculture is totally rain-fed, orchard trees such as cashew trees are planted for cash income.

Figure 1: Typical Cropping Pattern in Lombok Island

Cropping Pattern 1; two time paddy and one time palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice (1)	██████████											██████████
Rice (2)					██████████							
Palawija									██████████			

Cropping Pattern 2; one time paddy and two time palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice	██████████										██████████	
Palawija				██████████			██████████					

Cropping Pattern 3; one time paddy and one time palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice	██████████											
Palawija					██████████							

Cropping pattern 4: one time paddy and palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice	██████████											
Palawija	██████████											

Sumbawa Island

As in the case with Lombok, cropping pattern changes depending the availability of water as follows; i) two time paddy in rainy and dry seasons and one time palawija, ii) one time paddy in rainy season and two time palawija in dry season, iii) one time paddy in rainy season and one time palawija in dry season and iv) one time paddy and simultaneously one time palawija in rainy season.

Figure 2: Typical Cropping Pattern in Sumbawa Island

Pattern 1; two time paddy and one time palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice (1)	██████████											██████████
Rice (2)					██████████							
Palawija									██████████			

Pattern 2; one time paddy and two time palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice	██████████											
Palawija					██████████			██████████				

Pattern 3: One time paddy and Palawija

Crop	J	F	M	A	M	J	J	A	S	O	N	D
Rice	██████████											
Palawija	██████████											

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(3) Farm Income

In general, farmers in NTB live a very humble life. Their source of income comprises of few options; agriculture, farm labor and cattle raising. Based on the interview conducted, their average annual income, except for the self-consumed rice and farm product, is considered to be more or less Rps. 2,000,000/year (approximately equivalent to US\$200 /year) without cattle raising.

Agriculture

Usually, paddy, crop of the prime importance for Indonesian, is cultivated on self-consumption basis. In areas with relatively abundant irrigation water is served, dry season cropping is also performed and farmers can sell excessive products for cash income. However, for most of the villagers where water availability is limited, paddy is cultivated in rainy season only and for self-consumption purposes. As a result, remaining small amount of rice and palawija, if available are sold (Paddy sold at approx. Rps. 1,300 /kg).

Farm Labor

Landless farmers are common in many villages in NTB. For those who have not own land, working as farm labor is one of the limited farm income resources. In the dry area, even land owner farmers in dry areas work as farm labor in the vicinity where irrigation water is available.

Cattle Raising

Cattle raising is considered to be a promising tool to generate income to farmers, taking into consideration of the limited agricultural potential and present status of cattle raising in the visited villages. As Bali cattle has been used for ox-plough in NTB province for a long time and even now it is utilized for land preparation, although a tractor is becoming dominant, farmers in NTB are quite familiar with cattle and know how to raise cattle from experiences.

In addition, taking advantage of the supporting system offered by the central and local governments, farmers have chances to obtain cattle with favorable conditions.

(4) Cattle Raising

Cattle farming in NTB is divided into three, namely, breeding, fattening, and the mixture of the two.

Lombok Island

In Lombok, there are limited grassland and most of the cattle are kept in barns, individually or colony farm basis. Cattle are fed with natural grass in rainy season and dried straw of rice, soybean, and peanuts, etc. in dry season. Based on the interview survey results to farmers' group,

Sumbawa Island

Grazing is common in Sumbawa taking advantage of availability of grassland. Cattle are herded in grassland or paddock and kept in the barn during the night.

The present status of cattle raising in NTB are summarized in Tables as follows;

Table 3. Number of cattle owners by the number of cattle owned in the visited villages.

Livestock Animal	1-3 (heads)	4-5(heads)	6-14(heads)	15-20(heads)
Cow	32	2	1	0
Bull	14	2	1	0
Calf	18	4	0	0
Total (persons)	64	8	2	0

Table 4. Price of Livestock Animals (unit million Rps.)

Livestock Animal	1-2	2-3	3-4	4-
Cow	1	15	17	0
Bull	0	7	8	0
Calf	18	14	0	0

Table 5. Livestock Services Technology Applied

Applied Service/Measures for improvement	Number of respondents
Vaccination	26
Artificial Insemination	11
Introduction of new breed	1
Improvement of new grass	23
Artificial feed (rice bran, tofu residues, etc.)	14

(5) Others:

Environmental Risk

There will be a risk of environmental pollution such as nitrate concentration as experienced in many countries including Japan when livestock is conducted more intensively in Lombok island. Careful monitoring should be conducted without delay.

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