FINAL REPORT

International Workshop on Ikat Weaving as Heritage for Sustainable Development in East Nusa Tenggara (NTT), Indonesia



Ndao Island, Rote-Ndao Regency, NTT, Indonesia October 24-28, 2012

Ikat Weaving as Heritage for Sustainable Development in East Nusa Tenggara, Indonesia

Final Report of the International Workshop on Ikat Weaving for Sustainable Development

24 – 28 October 2012, Ndao Island, NTT, Indonesia

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ABBREVIATIONS

ACC Asian Cultural Council
BMUN Badan Milik Usaha Negara
BNI Bank Nasional Indonesia

BPPI Badan Pelestarian Pusaka Indonesia

BPS Biro Pusat Statistik
BRI Bank Rakyat Indonesia

ICCO Interkerkelijke Organisatie voor

Ontwikkelingssamenwerking

IDR Indonesian Rupiah

IENH Institute for East Nusa Tenggara Heritage IIAS International Institute for Asian Studies

ISPA Infeksi Saluran Napas Atas DEKRANAS Dewan Kerajinan Nasional DEKRANASDA Dewan Kerajinan Daerah

DEPERINDAG Department Perindustrian dan Perdagangan

DPR Dewan Perwakilan Rakyat
GI Geographical Indication
HDI Human Development Index

NTB Nusa Tenggara Barat NTT Nusa Tenggara Timur

NGO Non Governmental Organization
PDAM Perusahan Daerah Air Minum
PLN Perusahan Listrik Negara

PLTS Pembangkit Listrik Tenaga Surya

TTU Timor Tengah Utara PERDA Peraturan Daerah

PKBL Program Kemitraan Bina Lingkungan SMKK Sekolah Menengah Ketrampilan Keluarga

UN-ESCAP United Nations Economic and Social Commission

for Asia and the Pacific

I am very proud to introduce a detailed and colourful report on the 'International Workshop on Ikat Weaving as Heritage for Sustainable Development in East Nusa Tenggara (NTT), Indonesia.' The workshop took place between 24 and 28 October 2012 on Ndao Island, in the Rote-Ndao Regency of NTT. As with almost all activities in which the International Institute for Asian Studies (IIAS), Leiden, is involved, this workshop was again the result of a successful cooperative undertaking that included the Governorate of East Nusa Tenggara, the Rote-Ndao Regency, the DEKRANASDA NTT and the Indonesian Heritage Trust (BPPI). But the most important participants were the people and craftsmen and craftswomen of the beautiful island of Ndao, where ikat weaving and dyeing are still an important factor of life and where traditional crafts are still being transmitted to future generations. The workshop brought together these craftsmen and women of Ndao Island with their colleagues from other parts of the province of East Nusa Tenggara. The weavers and dyers were joined by textile specialists from other parts of Indonesia, by administrators from the island and from the province. And there was a group of international experts, who are focussing on ikats and other textiles in different parts of Asia, as for instance in India, Japan and Laos.

The workshop, which was sponsored by the Interchurch Organization for Development Cooperation (ICCO), and the Asian Cultural Council, fitted in with the general ambition of IIAS of bringing academics in any field of Asian Studies in close contact with practitioners and policy makers, thus to ensure a better understanding between the various echelons of policy development, from the 'shop floor' to the presidential palace, and to stimulate a more efficient exchange of expertise. The ikat workshop on Ndao also fitted in with one of the focal areas of IIAS, namely Asian Heritages. IIAS has recently been very active in promoting the critical study of Asian Heritages, which translated itself in a number of workshops and roundtables in Asia and Europe, and the development, together with the Leiden University Institute for Area Studies, of a double degree MA programme in Critical Heritage Studies in Asia and Europe, which is currently being linked to comparable programmes in Korea and Taiwan, but also in Indonesia.

IIAS hopes that the workshop on Ndao Island, which was so enthusiastically prepared by Mrs Yetty Haning, a former fellow of IIAS and originating from ENT, will not only contribute to the preservation and development of the Ndao ikat traditions, but will also help the textile production in other parts of the Province and Indonesia. IIAS also hopes that the ikat production in East Nusa Tenggara will be included in the growing academic and governmental attention to the concept of Cultural Heritage, and that the workshop in October 2012 will be regarded as a model for discussions and exchange between craftsmen and women, policy makers and academics.

Dr Philippe Peycam, director International Institute for Asian Studies, Leiden, The Netherlands

Program

Day 1

A Welcome Dinner in Kupang city, the capital of NTT province hosted by the Head of Dekranasda NTT, Mrs. Lusia Lebu Raya

Day 2

Morning

Departure from Tenau Port, Kupang to Rote Island

Noon

Arriving at Ba'a Port

A welcome lunch and explanation by the Regent about Rote-Ndao history, development, challenges as well as opportunities surrounding Ikat in Rote-Ndao. Signing of the MOU between IIAS-Leiden; Rote-Ndao Regency and Indonesian Heritage Trust (BPPI)

Afternoon

Arriving at Anugerah Hotel, Nemberalla Resort, Della

Evening

Presentation by the Head of Deperindag, *Drs. Orias Muskananfola* about weaving communities in Rote-Ndao

Day 3

Morning

Departure by boat to Ndao Island from Nemberalla

Noon

Arriving at Ndao Island

Opening ceremony at the Protestant Church of Imanuel, Lendeiki, Ndao

Introductory speech by Rote Ndao Regent Drs. Leonard Haning, MM and Dr. Philippe Peycam the IIAS Director. The opening marked with hitting a gong (pukul gong) by Regent, IIAS Director and BBPI Representative (Dr. Laretna Adhisakti)

Lunch with villagers, guests, *dekranasda* representatives from all regencies in NTT and government officials

Ongoing Exhibition of Ikat Textiles and Technique Demonstrations participated by Regencies in NTT.

Afternoon

Session 1: Value and Significance of Ikat (Socio-cultural)

Explanation of the workshop format by Dr. Philippe Peycam (Director of IIAS) and co-chairs with Yetty Haning (Project Coordinator/IIAS Fellow)

Session 2: Value and Significance of Ikat (Economic and Technical aspects)

Co-chairs by Dr. Willem Vogelsang(IIAS Vice Director), Dr. Laretna Adhisakti (BPPI) and Dr. Aarti Kawira (IIAS Fellow)

Evening

Session 3: Community/Producer's Concerns Co-Chairs by Dr. Eriko Aoki (IIAS Fellow), Dr. Aarti Kawira and Dr. Willem Vogelsang

Session 4: Product Design, Diversification and Vegetable Dyes Co-Chairs by Dr. Philippe Peycam, Yetty Haning and Dr. Willem Vogelsang

Dinner

Day 4

Morning: (Parallel sessions)

Session 1 Role of State Bodies and Policies Session 2 Role of International Designers and Markets

Noon

Session 3 Education and Training

Afternoon
Session 4 Next Steps
Discussion on conclusions of the Workshop
Group Photo

Closing Ceremony

By Regent and IIAS Director

Day 5

Morning
Departure to Rote

Afternoon
Departure to Kupang

Maps of Host Province (NTT) and Regency (Rote-Ndao)



Map of the East Nusa Tenggara, source: www.goseentt.com

The East Nusa Tenggara Province consists of 566 islands (inhabited and uninhabited) with the main islands of Flores, Sumba, Timor, Rote, Alor and Sabu. These main islands are known as FLOBAMORA. Total population is 4,679,316 (2010) and religion consists of Catholics (55%), Protestant (34%), Islam (8%), others (3%). The capital of the province is Kupang situated in west Timor Island. East Nusa Tenggara in Indonesian is Nusa Tenggara Timur (NTT) means eastern southeastern Islands¹.

¹ http://en.wikipedia.org/wiki/East_Nusa_Tenggara



Map of Rote-Ndao Regency, source: www.indonesiatraveling.com

Rote-Ndao Regency is a regency in East Nusa Tenggara province, consisting primarily of the island of Rote, situated south-west of the western tip of West Timor.

Executive Summary

The objective of the international workshop on Ikat Weaving as Heritage for Sustainable Development in East Nusa Tenggara (NTT), Indonesia held in the Ndao island of NTT, was to engage the weaving communities at the regencies in NTT on issues of the cultural preservation of traditional ikat textile for sustainable livelihoods and for development of local and rural economy in NTT at large.

The workshop brought together Indonesian and international experts representing local and provincial governments, academia, private sector, civil society, weavers, artisans, textile designers, traders, development organizations and dekranasda representatives in NTT. Among the Indonesian participants were senior master weavers, Mrs. Juliana Sina, Mrs. Dortje Lussy and Mrs. Wihelmince Ratu, as well as Indonesia's well-known textile designers Mrs. Tuty Kholid and Mr. Merdi Sihombing.

The workshop was organized around seven main topics of interest to weaving communities in NTT in their efforts to revitalize the traditional textile of ikat: 1) improving the quality of productions; 2) protecting ecological and environment; 3) establishing ikat research, design and exhibition centers; 4) introducing ikat at all levels of education; 5) enlarging networks and market possibilities; 6) addressing issues of motifs, designs and technique patents and 7) identifying next steps for actions and plans.



(Photo: Group photo with Head of Dekranasda NTT Province, Vice Governor and High Officials, Kupang - 2012)

Session I: Weavers Engagement

The workshop begins with engaging the weavers into sharing and discussing issues related to their weaving activities. Topics focused in this session covered issues surrounding:

1.1 The Quality of Ikat Productions

The main topic discussed was the quality of ikat products by addressing two main questions: Who is using natural dyes? And how to empower the weavers to address the difficulties facing the use of natural dyes?

The workshop believed that natural dyeing is the solution for better quality of products (beside other important aspects such as design and technique).

- NTT has a long tradition of ikat weaving with natural dyes over centuries, which can be used to stimulating the weaving communities to revitalize the ikat tradition in NTT.
- Most of the weavers throughout the islands claimed that they were aware of the benefits of using natural dyes; some still apply the

natural dyes while most of them have shifted to chemical dyes. For example: in east and west Sumba, they still use natural dyes, while most of the weavers in Ndao have been using chemical dyes for more than four decades. The increasing demand for colorful styles and products that are less time-consuming have driven most of the Ndaonese weavers to adopt chemical dyes (e.g. Wantex and Naphthol) in the last 40 years. And even though the awareness toward natural dyes is increasing among weavers they face two main obstacles in successfully implementing the dyes: the market for naturally dyed products is limited, and the colors achieved using natural dyes are less attractive for most local consumers.

- Also, what is missing is a broader network among the weavers in exchanging their knowledge about the economic and ecological benefits of using natural dyes, as well as a more structured partnership between government, related institutions (public and private) and weaving communities in terms of the availability of natural dye products, accessibility to a wider markets and the sustainability of eco-friendly products.
- As an immediate step, the local governments need to establish policies to increase the awareness of ecological and economic security embodied on weaving activities; these policies could include bans on the use of polluting synthetic colorants, and encourage the use of vegetable dyes that would increase the cultivation of dye crops. In the long run, it will trigger the revival of local natural colors and sustain rural economic development.



(Photo: Weavers engagement, Ndao, 2012)

1.2 Yarn Supplies

Despite a sizeable of yarn is being produced in Indonesia, imported yarn such as cotton from India and silk from China is well-known in Indonesia's weaving activities. According to Indonesian Synthetic Fiber Makers Association (APSyFI), there are 12 companies of APSyFI's members producing Polyester Staple Fiber, Polyester Filament Yarn and Nylon Filament Yarn in Indonesia. Indonesia is one of the world's 10 largest producers of synthetic fiber, with total capacity of 588,000 tons of polyester staple fiber, 833,000 tons of polyester filament yarn, and 32,000 tons of nylon filament yarn². In the light of this, it is important to rise the issues surrounding yarn supply and distribution in Indonesia and particularly in NTT such as where to buy yarn, who controls the yarn supply, costs of yarn and at what price does the yarn arrive at the weavers, how much yarn is needed to make a piece fabric (such as a sarung or selimut), why imported yarns (India and China) are dominating the yarn markets in Indonesia and since when?

NTT yarn importers trade yarn through various suppliers in India.
The complexity surrounding yarn supply and control affects the
price of yarn. It goes via many places before arriving at the
weavers, particularly those in remote places such as Ndao Island.

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² http://www.fiber-indonesia.com/

- There are several types/brands of yarns distributed in the markets i.e. (32/2), (60/2), (80/2) and Himalayan brand. The Himalayan brand is known to NTT local markets with the price of 100.000 800.000 (IDR) while price of cotton is 800.000 (IDR) per kilo.
- On average the price of yarn is 200,000 (*IDR*) per box, however the price is not fixed. For instance, in Ndao when there is bad weather with strong waves, the boats cannot easily cross the sea to bring more supplies, so the price of yarn is increased.
- The type of yarns distributed in NTT are low quality among (32/2) and the type of 60/2 and 80/2 are mostly distributed in Java, Bali and NTB.
- The local government has been subsidized yarn through *Koperasi* department or *Deperindag*. But the subsidy is also limited. So far, these are the only two government departments subsidizing yarn.
- The government response was to tackle the yarn supply by; planting a hectare of cotton in every district in Ndao; establishing weavers cooperatives where the weavers can have better access to yarn market/supply and also market possibilities.



(Photo: Type of yarn distributed in NTT, Mrs. Sina Weaving Home, 2011)

1.3 Vegetable Dyes

The biodiversity and the climate in NTT are conducive for sustaining ikat weaving activities in NTT. Cotton and vegetable dyes have now been replaced with chemical colorants and products. Efforts to revitalize weaving with vegetable dyes and raw materials have started through local

government initiatives and private/public enterprises since late 90s. Medicinal and ecological benefits of vegetable dyes were also reintroduced in the workshop.

- The Dekranasda Rote-Ndao provided a list of plants that they have included in their training kits for vegetable dyes (Appendix I).
- The local government's response was to work together with local farmers and weavers in planting crops that are listed on the Appendix I.
- The workshop underlined the importance of local farming management including the supply of vegetable dyes in the market.

1.4 Planting and Cultivating

The questions pertaining the planting and cultivating of natural dye crops were: What kind of plants or crops can be planted? How does biodiversity in NTT link with rural agriculture, medicinal activity, and/or non-toxic products for weaving activities?

- The government representatives at the workshop (*Deperindag*), has already took the initiative to investigate the cotton plantations in Ndao but unfortunately cotton is hardly found in Ndao todays, unlike in Sumba and Alor.
- The Dekranasda Alor was represented by a master weaver who explained her efforts in planting and re-discovering natural dyes since 90s. Presently, she has managed to revive and discover 180 natural dye colors.
- The Dekranasda Sawu representatives acknowledged the benefits of natural dyes for medicinal activity and practices in rural Sawu.
- The Dekranasda Rote-Ndao has already taken the initiative to plant a diverse natural dye product by collaborating with local farmers in the water ponds areas in southwest of Rote.
- Health problems related to the use of chemicals were found in some weavers such as breathing problems, throat pain, headache, itchiness, etc.
- The government's response was to work together with related actors specifically district leaders and local farmers in planting cotton in every district (particularly in Ndao) and diverse natural dye crops that would benefit the cultural preservation, health (medicinal), environment and rural agriculture in NTT. The role of local communities is to work in partnership with the local government to build awareness of the significance of cotton plantations and diverse natural dye crops for communities and the rural economy.

1.5 Water Supply

The lack of water supply is common in NTT due to the lack of rain. The rainy season is very short – rain falls in late December to mid-February

followed by the dry season throughout the year. Issues surrounding water supply for dye crops were addressed such as water content (in the soil). Water determines the colors, and so the most important is how to tackle the lack of water for dye crops.

- The government's response was to build water ponds to reserve the water for farming during dry season and to distil sea water for drinking. In Rote Island, there are currently 15 water ponds built by the government.
- To embark on these efforts the government should work together with related institutions in planning and designing proper plans as well as provide infrastructure support.

1.6 Chemical Colorants

The chemical dyes introduced to weaving communities in NTT in late 70s were wantex and Naphthol. Until today Naphthol is widely used in Ndaonese weaving; more than 95 % of ikat products from Ndao use Naphthol. The main question raised was what product should replace Naphthol, as the products from Naphthol have its market and consumers in NTT?

- Most of the weavers agreed to stop using Naphthol if environment-friendly chemical colorant is introduced.
- The weavers also agreed to leave chemical dyes if vegetable dyes and raw materials were available.
- Government's response was to work together with related actors to ban the use of Naphthol in NTT.

1.7 Waste Recycling and Disposal

Waste recycling and disposal are not properly understood and handled among a majority of weavers. Waste from raw or chemical materials are mostly disposed untreated in the ground. The effects of waste disposals have added to environment threats and health issues.

Waste disposal is a very complex phenomenon, affected by inefficient use of raw/chemical materials and unnecessary use of energy and water. To minimize massive waste disposal in weaving activities, the re-use of waste materials through recycling should be introduced.

- Government's response was to improve waste disposal management in weaving communities by building wells used only for weaving activities and build proper drainages for waste.
- The workshop advised the government and the weavers to learn about waste recycling and disposal management in weaving communities in India.

Session 2

The session focused on issues of:

2.1 Motifs, Designs and Techniques

NTT has very diverse motifs, designs and techniques in ikat. The ethnic backgrounds in NTT can be identified by ikat motifs. The ikat motifs in NTT are dominated with motifs such as various flora and fauna as well as marine animals (such as in Alor) and human figures. The diversity of motifs displayed the position of humankind within ecosystems. Motifs, designs and patterns demonstrate pride, social status and symbolic meanings for NTT people. There are three types of ikat in NTT namely: 1) tenun ikat: means motifs are formed through the process of tying the threads 2) tenun buna: local term of north-east Timor that means weave to create a pattern or motifs on the fabric by using yarn that has been dyed and 3) tenun lotis /sotis: the weaving process is similar with tenun buna by using threads that have been dyed.

The spread of these three types of ikat can be traced geographically such as tenun ikat is spread in almost all districts/regencies in NTT except east Manggarai and partly Ngada, while tenun buna is spread in Kupang, south-east Timor, Belu dan mostly in north-east Timor) and tenun lotis / sotis is spread in the districts of Kupang, east-south Timor, north-east Timor, Belu, Alor, east Flores, Lembata, Sikka, Ngada, Manggarai, east Sumba and west Sumba³.

Traditionally ikat products are made into: sarong (women's wear); selimut besar (men's wear) and selimut kecil (shawl)ⁱ. They are mostly woven in dark colors as basic colors such as black, brown, maroon and dark blue.

Ikat motifs from the main islands in NTT are explained further as follows:

Flores:

FIUI E3

Ikat weaving in Flores can be found in Manggarai, Ngada, Nage Keo, Ende, Lio, Sikka, Lembata and east part of Flores.

Ikat is produced with various materials from synthetic colorants, natural dye, and rayon. The dominant colors displayed on Flores ikat include golden yellow, red, maroon, green, dark colors (e.g. combination of blue and brown), white, black and blue, with different techniques from one place to another. The motifs also vary from one place to another with the dominance of floral and animal motifs. The designs and motifs differ by social status, gender, age and occasion.

³ http://nttprov.go.id/2012/index.php/en/potensiwista/pesonabudaya/tenunikat

To revitalize ikat in Flores, the use of vegetable dyes has been widely introduced, as well as improved techniques of weaving and inventing new motifs. Weaving businesses (both individual and collective) are progressing in Flores. The role of religious leaders such as catholic monks is also very important in learning lessons on preserving ikat in Flores. A further study needs to be conducted on how public and private enterprises function in the revitalization of ikat in Flores.



(Photo: Flores Ikat, Watublapi-Maumere, 2011)

Sumba:

Ikat Sumba displays several motifs such as the star, horse, *mamoli, belah ketupat,* buffalo eyes, chicken, and butterfly. Unlike other places in NTT where the use of ikat is no longer strictly based on the social status, this is still strongly practiced in Sumba. The use of raw materials as well as the symbolic and religious meanings embodied in the ikat weaving process in Sumba is still practiced today. So far, only ikat Sumba has been listed in UNESCO.



(Photo of Ikat Sumba, Dekranasda NTT Collections, 2012)

Timor (west Timor):

Ikat motifs known in west Timor are the *Buna, Sotis, Insana and Biboki*. West Timor has a long tradition of ikat weaving. Weaving activities are found in almost all districts throughout the West Timor region, from Kupang city (the capital of west Timor) to the border of east Timor. Places known for weaving such as in Kupang (settlers from outside Kupang or Timor) Amarasi, Soé, Belu, Kefamenanu, Atambua. The weaving business in west Timor is also growing through the rise of small entrepreneurs, community groups (through government departments of *Koperasi*), foundations, organizations, ikat centers, to tribe-owned businesses with various productions of chemical dyes and natural dyes. Lessons learned from *Biboki tribe* in maintaining and preserving the Timorese heritage of ikat that benefits of their own community.



(Photo ikat, Soé- south-east Timor, 2011)

Rote:

Main Motifs dominating in Rote ikat are: Ai Bunak, Dula Kakaik, Su'u Dok, and Manu Pui. Sasandu and tií langga are new inventions added to Rote-

Ndao motifs collection todays. And the main pattern Rote ikat is created in a connected rectangular building⁴.

The Rote ikat main motif can be found on men's wear (*lafa*). The influence of Christianity through colony in Rote ikat is also found on the head covers (*lafa langgak*) such as candles and cross. In the past, the motifs were distinguished into the kingdom (*nusak*) in Rote; there were 19 kingdoms (*nusak*) throughout Rote⁵.

Rote ikat motifs are divided into two main streams: western Rote known as *henak anan* (young Pandanus amaryllifolius) and eastern Rote known as *lamak nen* (young grasshopper). Eastern Rote Motifs inspired by leaves eaten by grasshoppers such as young borecole/cabbage leaves (ngganggu dok). The patterns are created in small leave-borne. Whereas western Rote motifs are inspired by pandanus fruit and the patterns are created to leaves or parallelogram in bigger size than east Rote motifs. Other motifs are: pending (traditional women's belt made from silver), sea animals, and breadfruit leaves (suú dok) with dominant colors of black and white⁶.

The Rotenese have a long history of ikat weaving; it started long before the introduction of cotton and yarn through trades where the Rotenese wore body cover called *kaloro* made from Borassus leaf (*lontar/gewang*). The use of natural dye and raw materials were also known in Rote long ago. For example, to tie they used *lontar* leaf (*heknak*) and vegetable/natural dyes such as noni, curcuma, indigo (*nila*) mud, etc⁷.

In the past, each girl will get married should be able to weave. Usually the girl's ability to weave tested before receiving a cultural proposal (masominta), if the girl has not been able to weave the marriage should be postponed and even canceled. The level of recognition is given to a girl by how many fabrics are made before marriage. The more fabrics produced the higher value of the girl for the man's family⁸.

The motifs are also based on social status. In the past, certain motifs could be worn only by the Royals. If ordinary people caught using the existing motif that woven for the king then the fabric would be destroyed right away (chopped and burned). King's motif is considered sacred and is highly regarded. Weaving continues to evolve, using more modern tools, materials and processes. The shifted of traditional weaving to modern ways has vanishing the sacred values and meaning of ikat in Rote. Motifs continue to be modified and the colors began to develop not just black and white. Ikat is now not only used in ceremonies (birth, wedding and funeral) but in a widespread fashion, souvenirs and interiors, etc. Sadly, today weaving is not as common as it was in the past in Rote. There is also a big shift in the lives of young people to pursue high education and

 $^{^4\} http://ataupahfamzz.blogspot.nl/2012/05/about-tenun-ikat-pulau-rote.html$

⁵ ibid

⁶ ibid

⁷ ibid

⁸ ibid

⁹ ibid

become civil servants, doctors, engineers or businessmen, etc., leaving weaving activities behind.



(Photo: Rote ikat, IENH, 2012)

Sabu/Sawu:

The main motifs of Sabu ikat are categorized into two main groups: *Hubi Ae* (big) and *Hubi iki* (small). Within these two main groups there are sub-

groups called *wini*. The most famous Sabu ikat are found in *si hawu* (*sarong*) and *higi huri* (selimut/shawl)¹⁰. The traditional motifs include flora and fauna as well as geometric patterns. The motifs do not refer to social status but signify their membership of a female-aligned clan or class system¹¹. The dye process is conducted by four basic colors i.e. dark blue, indigo, red and black with vegetable dyes of noni and turmeric. Yet, in present days the use of natural dyes in Sabu is also declining, despite the wide trend of synthetic dyes, weavers in remote villages in Sabu still practice the use of natural dyes and raw materials. As newly-established regency, Sabu still lags behind economically, compared to other regencies in NTT. Many villagers depend heavily on weaving as a source of living besides farming, livestock and fishery. Related institutions such as *Dekranasda*, *Deperindag* and *Koperasi* at regency level are not functioning well. It is clearly urgent to extend support of related public and private enterprises in preserving Sawunese ikat traditions.

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¹⁰ http://www.saburaijuakab.go.id/

¹¹ Ibid

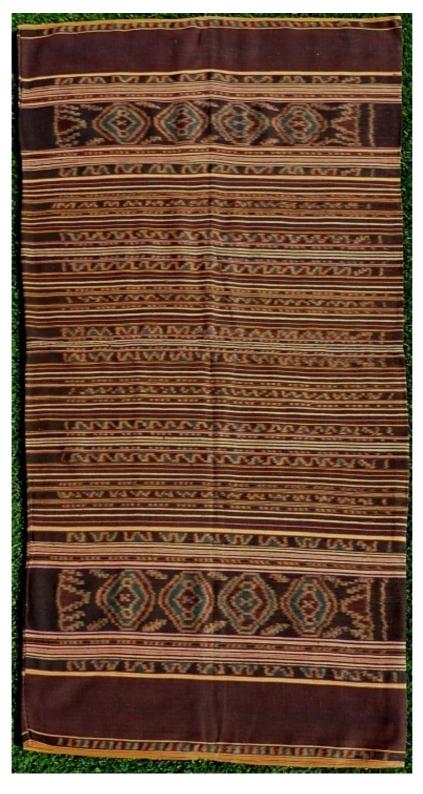


Photo: Sabu ikat, IIAS, 2012)

Alor:

Ikat motifs in Alor differ from one district to another. *Moko* (traditional music instrument made from bronze), flora, and human and animal figures (dragon, elephant, fish and turtle) are dominant in Alor ikat. Traditionally ikat represented social status and symbol like other places in NTT. Ikat in Alor today serves as contemporary fashion as well as for

tourism. The use of raw materials and vegetable dyes is dated to the late 90s. Many weavers turn to vegetable dyes while some are still using chemical dyes. Related institutions including Dekranasda at the regency level are active in introducing the use of vegetable dyes. Lessons learnt from Alor are reviving natural dyeing as well as planting cotton and vegetable dye crops.



(Photo: http://www.ikat.us/ikat_130.php)

Discussion surrounding motifs, designs and techniques were on whether there should be improvement in these areas, but unfortunately there was not much discussion about designs and techniques. The weavers were advised to recall the original motifs of their ancestors while opening themselves to producing contemporary motifs that are needed in the market. In terms of designs and techniques, there is need for improvements, i.e. ikat designed into contemporary fashions, accessories, interiors, bags, etc. The techniques could be improved by how to make a good quality of ikat in variety of sizes in less time, good quality of colors and using different fabrics.

- The dekranasda Rote-Ndao response was that in the last few years the Ndaonese weavers have invented and producing new motifs such as sasandu (traditional music instrument) and tií langga (traditional hat).
- The dekranasda NTT representatives said that trainings have been conducted in the past, focusing on recalling motifs and to reinvent the motifs that would fit with contemporary fashions.
- The workshop response was to address the significance and the importance of the improvement of motifs, designs and techniques.

2.2 Ikat Education

Traditionally every young girl is taught to weave in rural areas. They begin by learning how to tie, bind and dye and finally weave a piece of fabric (sarung or selimut). By the time the young girl is ready for marriage she has already prepared sarung and selimut that she will wear on her wedding. This array of embellished textiles demonstrates the extent of her talent in learning how to weave and become self-sufficient. The 'informal education' of ikat as inherited in the family is known over generations. The main question posed in this session was: How to address the importance of formal and non-formal education of ikat at various levels, from lowest (play group) until the highest and is there any formal and/ or non-formal education on ikat in NTT?

Presently, there is only one vocational high school in Kupang (SMKK) that has recently introduced ikat as subject of instruction. The students are trained to make a small piece of ikat fabric.

Whereas in non-formal education through trainings such as improving designs and techniques, re/discovering colors and motifs, using natural dyes, are being conducted by related institutions/enterprises (public or private) and gradually increasing since 90s. Yet, a lot still needs to be done and there is a lack of coordination among the public and private enterprises and lack of synchronized programs conducted in reviving ikat weaving in NTT.

In general, all participants were confident that formal and non-formal education and training would be the answer to introduce ikat to the younger generations. They acknowledged however, that a special focus

needs to be addressed on integrating ikat as heritage on the education curriculums from school onwards and up to the university levels in NTT.

- In formal education, curriculum about ikat should be designed from the lowest to the highest levels. Curricula should be integrated within the level of children's education, e.g. comics about cultural heritage of NTT for children at primary school, diverse motifs, biodiversity of NTT that leads to various crops for nutritious consumption, medicinal purposes, etc. At the university level, indepth study and research on ikat should be introduced.
- At non-formal education, there is a need to continuously empowering private or public institutions to conduct non-formal education on ikat through trainings and open possibilities for involvement of development aid agencies in creating strategic funding policies for ikat development in NTT.
- The workshop also addressed the importance of setting up ikat museum and or/ community level textile research center in NTT. A museum that provides opportunities to learn, to discuss, to experiment as well as to revive and re/discover the natural colors, new designs or techniques, etc. The function of a museum should be beyond exhibiting the products and also should be as an educational place for people to learn about ikat weaving.
- Government will work together with People Representatives (DPR) to establish regulations through (PERDA) about ikat education in the curriculum of NTT.

2.3 Ikat Market (Local and International)

Expanding markets for traditional textiles is one among the most-challenges tasks facing the weavers. The uncertainty in global market has driven local textiles to expand local markets as well as to create other market possibilities. Japan had been a favorable market for Indonesian traditional textiles, however since the economic crises; the market in Japan for Indonesian traditional textiles has declined, so therefore it is advised by the workshop to explore and expand other market possibilities such as in Singapore, Hong Kong, Thailand (and other Asian countries), Europe and USA and/or the possibility to create niche markets.

- The workshop underlined the importance of local markets, in NTT and wider Indonesia. NTT has big local consumers; numbers of efforts have been undertaken by the local government to make ikat as material culture in NTT, i.e. at provincial level, every civil servant is obliged to wear ikat twice a week; at regencies, beside civil servants the children at school (kindergarten until senior high) wear ikat as uniform (in Maumere-Flores, etc.); at social and religious activities; using ikat for decoration, etc. there are also more ikat consumers in bridal ceremonies, festive, festivals, interiors, etc.
- The workshop response was to empowering the weavers to produce good quality of products that would give them the

opportunity to enter outside markets. Furthermore, the workshop underlined the importance of market demands of foreign consumers who favor good quality natural dyed products as well as emphasize neatness, size, design and motifs, etc. thus chemical colorants such as naphthol should be excluded.

- The workshop advised provincial government and dekranasda in NTT to work together with designers (i.e. Merdi Sihombing) to produce ikat favored by outside markets, in this way they could enlarge the market possibilities for ikat. Java, Sumatera and Bali provide good prospect for ikat markets in Indonesia.
- The weaver participants were also requested the workshop to make recommendations for the government and dekranasda to conduct trainings for weavers to learn about market demands and business managements.
- The importance of learning about market demands will help weavers to sell their products efficiently and also help them to make better profits.
- The downturn of global economy could be an opportunity to enlarge local market as well as to create new market opportunities for ikat (i.e. niche markets). Thus, the government and related institutions (private and public) should work together to expand market possibilities where ikat could achieve higher quality products while yielding greater profitability locally, nationally and globally.

2.4 Labors and Wages

Labor and wages are important factors in ikat weaving. Unfortunately they were not much discussed in the workshop. Issues surrounding labor divisions and wages were touched but not much information was available from the weavers about whether they are satisfied with the wages and what reforms need to be made in this regard. It may be worthwhile to look further into the economics of ikat at the level of household economy for further insights.

2.5 Price and Profits

The main focus in the weaving activities beside cultural preservation is profit. As a main source of income for most of the rural communities, weaving should bring income that sustains livelihoods. So therefore, the weavers want to be sure that their products are sold and bring profits. The main question underlined was how to help weavers to make the products profitable?

 A set of price is still not clearly defined; prices are different from one place or one weaver to another. It is clear that the weavers need to be taught about how to set a price that gains profit as well as is easily sold. All these however, require commitments of the weavers to produce good quality of products with little capital or investment and at the same time implementing fair labor wages.

2.6 Motifs and Pattern Rights

Copy rights are essential when it comes to arts and crafts. The main questions addressed in this topic were how to obtain ikat copy rights? Whether a geographical indication (GI) should be introduced where such motif could not be produced elsewhere? Or there should be weaver's copy rights? Or else?

- The workshop acknowledged that obtaining a copyright is a lengthy procedure and requires many prior steps. A first step should be; identifying, documenting and cataloging all the motifs in every regency in NTT, which are then submitted to copyright publishers.
- Dekranasda NTT response was that, thus they have documented nine regencies' motifs throughout NTT. They will work together with Ministry of Human Rights to apply for NTT ikat copyright. So far, Sumba ikat is already on the UNESCO list.
- The issue of GI or weavers' copyright was not addressed in further details.

2.7 Role of Government and Dekranasda

The government departments and non- government institutions directly involved in the development of Ikat in NTT are Department, Koperasi and Dekranasda.

2.7.1 Role of Deperindag

Deperindag is a governmental body which implements most of the regional industry and trade. Focusing and providing assistance in the field of industry and trade assigned by the governor. In regard to the development of ikat as an industry in NTT, the Deperindag roles are to analyzing the role of the home or small industry such as ikat in the wider economy of NTT; to analyze the supporting factors (capital, access to markets, government regulations, labor and production) on ikat's industrial development; and to draft policy analysis that is to be set by the local government to support the development of the ikat industry in NTT¹².

In implementing these roles, the Deperindag Rote-Ndao has been conducting programs and activities in the development of ikat as home/small industry as follows:

Subsidizing yarns and dye products

¹² http://disperindag-ntt.info/

- Encouraging the planting of cottons
- Introducing natural dyes for the improvement of quality production
- Building wells for weaving activities
- Improving waste and disposal management
- Planting natural dye crops
- Conducting trainings for the improvement of ikat industry such as natural dyes, design and techniques, business management
- Responding to the request to ban chemical colorants
- Building arts and culture center (rumah seni budaya)
- Expanding markets of ikat
- Establishing funding schemes into programs
- Attending exhibitions

2.7.2 Role of Koperasi

The Koperasi was introduced in Indonesia since 1896 with the primary aim of providing savings and loans. The development of Koperasi in Indonesia is also to provide goods for production purposes. The Koperasi was officially established as an institution only in 1947¹³.

The main roles of Koperasi are: 1) assisting its members in improving their incomes 2) creating and expanding jobs 3) uniting and developing its members as individual and community.

With regard to the development of ikat in NTT, Koperasi functions as follows:

- Provides loans for small business
- Provides market for ikat
- Subsidizes yarns

2.7.3 Role of Dekranasda

Dekranas (National Crafts Board) is an association of craft producers that promotes the development of craft industries through activities such as exhibitions and trainings. At the national level the board is chaired by the wife of Vice President while the wife of President is Advisor. At the province level, *Dekranasda* (Regional Crafts Board) is chaired by the wife of governor and at the regency is chaired by wife of Regent¹⁴.

The dekranas and dekranasda members are public figures from various functions, especially those who are closely related to the cultural arts and craft; arts and crafts lovers; community leaders; artists and artisans; master weavers; and experts on arts and crafts. They carry out duties as follows: 1) developing arts and crafts 2) helping members to achieve

¹³ http://jibon89.wordpress.com/

¹⁴ http://id.indonesian-craft.com/

organizational goals 3) increasing arts and crafts contributions on regional development 4) accommodating aspirations of its members as a means of mutual communication between members and the government 5) raising the potential and the development of handicraft products.

In realizing its role as Regional Craft Board, the Dekranasda(s) at province and regency levels have conducted activities including:

- Trainings on natural dyes; designs, motifs and techniques, business management at both province and regency level (recent trainings held on motif, design and techniques in west Timor districts of Kefa, TTU and Amarasi)
- Weaving competitions that involve weavers throughout regencies in NTT (in 2009 and 2011)
- Planting and cultivating natural dye crops (including cotton) such as in Alor and Sumba
- Providing free yarn for the weavers' groups of those produced good quality of productions
- Training on how to make and spin the yarn
- Documenting and cataloguing ikat motifs in NTT
- Rediscovering and inventing new motifs and designs for contemporary usage
- Working together with related ministries on NTT ikat copy rights
- Monitoring management of waste disposal
- Working together with weavers who want to use natural dyes
- Registering ikat to be part of National Heritage Commission
- Supporting weavers who attend exhibitions with return flight ticket and five days free accommodation
- Opening networks for weavers
- Enlarging market possibilities for ikat particularly outside NTT
- Encouraging and supporting weavers to attend exhibitions

To fulfill its function the dekranasda encountered problems such as:

- The challenge working with seasonal weavers: weavers of those have other jobs such as fishing or farming
- Lack of yarn supplies and equipment
- Limited natural dye crops
- Lack of indigo leaves, morinda roots during dry season
- Long process taken for coloring during rainy season
- Most weavers less interested in weaving small motifs because it takes more time
- Lack of source and information about natural dyes
- Lack of knowledge among the weavers about the benefits of natural dyes on environment and health
- Limited market
- Limited funding
- Lack of experts
- Lack of networks
- Lack of information
- Lack of technology

The workshop advised that there is a need to increase the roles of these institutions (Deperindag, Koperasi and Dekranasda) in the development of ikat in NTT. It is seen that there is also overlapping functions within them.

2.8 Presentations

A few people made presentations during the workshop, such as Carol Cassidy from Lao Textile; Hiroko Watanabe as an antique collector in Tokyo; Simon Marks who has a business on traditional textile in Bali; I Gede Arsawan (a master weaver on Endek ikat in Bali); and Tuty Kholid (an Indonesian top designer). But due to the limited notes taken during these presentations, their presentation could not be presented in this report. Nevertheless their critical ideas and thoughts are integrated in the whole process of writing this report.

2.8.1 Merdi Sihombing:

Merdi Sihombing is a top designer in Indonesia deeply involved with the development of traditional textiles in Indonesia. He is assigned by the Indonesian government to revive traditional ikat funded by government. He began the project by re-introducing natural colorants from vegetable, crops and plants. He introduced the used of viscose and rayon to make yarns. He is very vocal in introducing the use of natural fibers; he explains that the natural fibers are easily found in Indonesia so therefore they can be used to replace cotton and silk. He also explained the function of hemp, fibers of wild orchids, banana fibers, and pineapple fibers. When he arrived in Rote-Ndao he saw *lontar* everywhere, he then strongly recommends lontar fiber to replace yarns. Merdi emphasized that the demands for yarn (cotton or silk) could be replaced with several of fibers that can be easily found in NTT. The natural color of indigo, diverse of vegetable crops and wild plants in NTT should be more than enough to produce ikat with natural materials. His extensive works in reviving traditional ikat in various places in Indonesia including Batak, Badui, etc are good examples for reviving ikat in NTT. He is also renovating traditional houses that are neglected into arts and culture training centers. He has received numbers of national and international funding to revive ikat weaving in Indonesia such as BNI, PKBL and Austrian Aid etc. During Merdi presentation, he also showed videos about his work in reviving ikat in Badui and batak.



(Photo: sample of new invention of Rote-Ndao motif, 'sasandu', traditional music instrument, Ndao, 2012)

2.8.2 Laretna Adhisakti (Sita)

Laretna Adhisakti or Sita is a lecturer at Gadjah Mada University. In her capacity as one of the chairman of Indonesian Heritage Trust (BPPI), she gave a presentation about empowering community after natural disaster. The topic was from minus to creative products. Sita gave the example of the effect of earth quake in Jogjakarta. Many people lost their houses, family members, etc. Behind the worse effects of quake, new opportunities arrived i.e. women (in Imogiri) whom lost their husbands and houses during the quake learning to make batik. They are taught to use natural dyes and to discontinue the use of chemical dye products. They are also helped with marketing and promoting their products. Since 2010 they only produce and sell batik with natural dyes. They began to market their products first in exhibitions. Since they responded well to the high demands of exhibitions on natural dye products, they created good market opportunities for themselves. In a single exhibition they could sell about 500 pieces of batik. The number of craftsmen is also growing, in the beginning there were only 15-20 craftsmen joined but now more craftsmen joining including young people. They received extensive trainings. Every week the organization who gives trainings received 50-100 pieces of batik from each village. Sita further said, to get a good quality of color (i.e.: indigo) you need to dye 13-15 times and she admits that the process takes a long time, yet the result is undoubtedly a mark of perfection. Until present date, they are also trying to expand the market to Japan and Australia. To be able to enter these markets they must products good quality of natural products as those countries demand *green* products. The craftsmen in *Imogiri* are very creative and committed; they received lots of money, they made good profits and get many orders. In closing of her presentation, Sita gave an example of *Boti* (indigenous clan/ethnic) in west Timor where the *Boti* people conserving the culture of ikat by using their own natural resources. The whole process of planting, spinning, tying and dyeing is available in their community. They produced and consumed ikat within their own community. Sita also added that besides selling the products, the weavers should also wear their own products; in this regard, it gives them the sense of ownership and also they can determine the quality of their products.

III. Group Discussions

Group A: Role of Non-Government and Private Enterprises

The main focus of discussions in this group was the privatization of ikat and management that leads to profits. In terms of improving the quality of products, leading to better price and better market, the group emphasized that it has to begin with providing good products; good products gain better price and better market. Furthermore, the group discussed about how to create better strategies to get better quality and better market, for example, the weavers should be creative about how to make the products look attractive. These efforts will eventually attract buyers and market. Beside good quality of fabrics, it was also advised that ikat should be made into other products e.g. bag, wallet, and accessories. It was also advised that it is important to describe the history and background of the fabrics to enhance the value of the product. In addition, the weavers must learn to be responsive to markets demand and also providing ikat products that fit with contemporary fashion.

The group gave an example of Japanese market and how Japanese markets valued *batik*. The Japanese like to use batik for kimono belt *(obi)*, but since until today no batik has been produced for kimono belt, the workshop believes that this could be an opportunity for ikat.

The workshop believed that besides improving the quality of production, it is also important for the weavers to attend exhibitions. Exhibitions open the horizons of weavers and allow more creativity. Therefore, the group thinks that it is important to open networks and channels for NTT ikat products to be exhibited in other places outside NTT such as in Jakarta.

 There was no clear recommendation delivered from this group to the extent of the roles of NGO and private enterprise in expanding quality, market and business management.

Group B: Role of Government and Policies

Many issues discussed in this group, the discussion began with the issues surrounding yarn i.e. the supply of yarn in NTT; where and who controls

the yarn supply. Many other issues such as natural dyes, ikat education (formal and non-formal), chemical colorants, water supply, waste disposals, etc. were also discussed. The group came out with a number of recommendations for the local government and related institutions.

- Yarn as the main source of ikat activities and productions, issues surrounding yarn supply was heavily discussed. The group emphasized in finding a solution to tackle the issues surrounding yarn supply i.e. diverse sources (in Indonesia), various trades in India and the importers in NTT. The complexity surrounding yarn supply in NTT triggers the increasing price of yarn in NTT. The group suggested that cooperatives will help to control the price of yarn.
 - The government representatives from *Koperasi* Department responded that from 2013 the Koperasi Department will establish weavers' cooperatives with an aim to provide and supply yarns; dye products; loom equipment and market the products. The department will work closely with village leaders to document names of weavers in each village and form them to weavers' cooperatives. The first step would be to communicate with the weavers about the benefits of weavers cooperatives. It is also advised that the government should build cooperation with yarn producers to give low priced yarn.
- ➤ **Natural Dye**: the group discussed natural dyes by underlining the importance of planting cotton and vegetable dye crops. In the long term will only use natural dyes. Therefore, it should begin with planting cotton and vegetable dye crops.
 - The government response was, to agree to plant cotton in every district while encouraging the community to plant dye crops.
- ➤ Chemical products, the group is aware that NTT has better chemical product consumers than natural products. Some of the weavers want to continue using chemical dyes because it is easy and fast to sell. So therefore the group advised to introduce environmentally-friendly chemical dyes and slowly phase them out completely with extensive use of natural dyes.
 - Government response was to work together with related institutions to stop the supply of the chemical colorant of Naphtol in NTT and introduce friendly chemical product
- ➤ **Water supply** is also one of the main factors in weaving activities. Long dry season in NTT contributes to the lack of water supply. The group addressed the importance of water supply for irrigation, health and dyes.
 - The government's response was to overcome the lack of water supply particularly in Ndao Island by distilling sea water to drinking water. In Rote Island there are 15 water ponds built by the government for farming and livestock. Government also promised to make irrigation.

- ➤ **Waste disposal management** is a very complex situation; the group underlined the importance of waste disposal management. Government promised to build wells that will be used only for dye activities and also provide better drainage for the waste. It is also advised to put the chemical dye wasted at one place that is separated from other waste.
- ➤ **Cooperation:** the group believes that cooperation is the best approach for the weavers and their weaving activities. Types of cooperation discussed as follows:
 - Cooperation between weavers and university.
 - Cooperation with graphic experts to document in a scientific way each motif, pattern, and technique and weaving practice in NTT.
 - Cooperate with national and international publishers (i.e. IIAS collaborating with Gadjah Mada University to establish a Master Program on Heritage). Yet, a careful analysis is needed because an activity/program is planned, it should be based on the local context. Ikat NTT is from NTT and it displays the pride of NTT people so therefore ikat should be studied in NTT.
 - The group also discussed the difficulties in cooperating with other provinces such as Bali because the methods of weaving is different between these two regions
 - The group did not discuss in detail how to implement the advised cooperation.
- ➤ **Research Center**: the group discussed the necessity to establish research and study centers on ikat in NTT preferably in Kupang (the capital of province)
 - How to materialize this idea was not fully discussed
- > **Trainings:** Types of trainings were discussed as follows:
 - Trainings about how to make yarn, how to spin yarn with less time consuming (usually it takes 1 week to spin a roll of the yarn); using spinning machine
 - Training in graphic design
 - Trainings on dyeing; the beneficial of vegetable dyes for coloring and medicinal. The training should also include better techniques in using natural dyes in terms of time consuming and better color that lead to the revival and discovering of colors and increasing of indigo collections at local level
 - Training about business management to set the price (it is found that ikat price are set differently from one another), accounting, etc. It is also advised to facilitate an exchange weavers program within the regencies in NTT. The weavers could learn from one another.
 - Training on information technology

- ➤ **Roles of Dekranasda:** the group believed that Dekranasda should also carry out a few other tasks as follows:
 - Documenting and cataloguing ikat motifs throughout NTT
 - Documenting and improving designs to fit with the contemporary fashion
 - Conduct trainings on natural dye in all regencies in NTT. The group advised Dekranasda to work together with the master weaver from Alor.
 - Register NTT ikat copyright
 - Cooperate with local government to tackle the complexity of yarn supplies
 - Work together with related institutions including that designers to improve the quality of technique and designs;
 - Work together with the local government in planting and cultivating natural dye crops
 - The group believed that the role of dekranasda is fundamental in facilitating the community and together with government they could play very important role to promote ikat. So therefore, the group advised to strengthen the function of dekranas as information center at the regencies and put together all these information for the weavers.
- ➤ **Copyright:** Copyright is very hot topic in Indonesia and also in NTT. To obtain a copyright it takes a long process, the group was advised to take step by step in obtaining the copy right. First step is to identify and cataloging all motifs in every regency in NTT and put forward to copy rights publishers. So far Sumba ikat is already on the UNESCO list.
- ➤ **Networking:** Networking among the weavers NTT to learn from one another about better ways in weaving activities. Networking among weavers should be established particularly with the master weaver from Alor to stimulate the use of natural dyes. No discussion further about how the networks could be effectively built.
- ➤ **Education:** the group discussed the importance of education ikat that is implemented in the curricula. The group also advised to work together with university to make ikat as a subject of the study at the university.
- ➤ **Cultural Centers:** the group believed there should be cultural centers established by dekranasda and universities/higher academic institutions in every regency. A central of cultural center should be established in Kupang by dekranasda province with the public/state university.
 - The cultural centers at regency level can be used as show rooms and information centers, for example in Rote-Ndao the existing cultural center purchases products from Rote-Ndao weavers and displays the products at the center.

- ➤ **Improving Health Facilities:** the group underlined the importance of better health facilities for weavers. The government promised to build a hospital that has a permanent physician in Ndao Island.
- ➤ **Government Tasks:** In this topic, the group addressing the issues surrounding government policies and regulations; response and responsibility of the government; government capacity in supporting ikat; how to facilitate long term preparation to implement those policies and regulations on ikat.
 - The government asked the workshop to define and produce definite recommendations that could help the government to take steps ahead.

Follow Up:

The workshop underlined the importance of the follow up(s) after the workshop such as:

- Each of the participants (individually or institution) has the roles to step forward and request the government particularly the local government to develop strategic programs
- The co-partners (IIAS) will follow up and see the progress that have been put together in the recommendation as primary document
- The report of the workshop will be made in two languages (English and *Bahasa* Indonesia)
- IIAS has committed to support two participants (Merdi Sihombing and Simon Marks) of the workshop to return to Ndao, to initiate a pilot project in technology and design intervention with the local community.

> Opportunities for Research:

There is great opportunity for research from various aspects with high scholarly value on ikat weaving in NTT. A collaborative research among international and Indonesian scholars/institutions can be a great opportunity for the development of Ikat in NTT.

IV. Conclusion

In concluding this report, there are a few key points underlined as follows:

 The weaving activities in NTT face many obstacles in reviving the ikat as cultural preservation and sustainability of the livelihood such as the limited of raw materials; limited market for natural dye products; limited supply of yarns; lack of good quality of products and techniques; inadequate solid waste management; lack of clean water and environmental degradation, etc

- Related institutions such as Dekranasda, Deperindag and Koperasi have tried to find solutions in response to these problems, including inventing new motifs, cotton and vegetable dye planting, conducting various trainings, providing and subsidizing yarn, etc. There should be clear coordination, roles and functions among these institutions to hinder overlapping and repetitions.
- To overcome these challenges there is a need for shortterm and long-term synchronized actions and programs.

V. Recommendations

A few key recommendations are drawn as follows:

- NTT needs to revive its long tradition of natural dye weaving by increasing the participation of public and private enterprises; government institutions; development aid agencies/organizations; traders; collectors; designers; master weavers; weavers to come up with solutions to empower the weaving communities to use natural dye products and to improve the quality of techniques, patterns and productions.
- The local government needs to develop partnerships with related stakeholders in planting cotton and dye crops to fulfill the demand on raw materials for weaving as well as enlarging market possibilities for ikat. This involves expanding collaboration between government and private institutions. Weavers will need to share their experience and information through networks and cooperation
- In order to prepare the communities to shift to natural dye and exclude the chemical colorants the related government institutions and including the dekranasda need to conduct various trainings on the effective education of the benefits of natural dye products on environment, economy and health.
- A further study and investigation on both environment and economic considerations with the use of chemical dyes in NTT weaving
- A further study to investigate further the effort to make ikat as material culture in NTT for both culture and economic purposes
- A further study on whether ikat should be remain as NTT people's culture property and or/ as a nation-wide public property
- A further research on new sources of colorants (bio products, marine biota, etc.) with regard to the biodiversity in NTT should be explored
- Policy recommendations to provide better infrastructures include water provision for drinking and irrigation, waste

disposal management, capital and investment as well as better information technology that needed for the development of ikat in NTT.

VI. Next Plan of Action

Introducing the use of natural dyes in weaving communities in NTT is complex. The shifting to chemical dyes has been long and widely practiced. Besides lacking of natural dye market and consumer, the weaving communities have to deal with many factors such as limited of raw materials and dye crops, the uncertainties of market possibilities and lacking of infrastructure supports.

- Forums for knowledge exchange and debates on critical heritage studies and development of regional economy (in regard to the ikat heritage in NTT) need to be set up
- Multiple actions are required at different levels. Short and long term synchronized actions are needed
- The capacity of the local government particularly with regard to implementation of policy recommendations.
- There is a need for broad network and sharing information and experience within local weavers in NTT and outside NTT.
- IIAS took an immediate action by facilitating two designers whom were participating in the workshop to conduct a pilot project on reviving ikat in Ndao early 2013.

VII. Background Information on Rote-Ndao Regency

7.1 Background Information of the Host Regency Rote-Ndao on Development Plans and Challenges and Its Ikat Weaving is excerpted from the opening address of the Regent of Rote-Ndao, Drs. Leonard Haning, MM (Source: www.rotemdaokab.go.id and other sources about Rote-Ndao).

The Indonesian Development Plans marked Rote-Ndao as one of the disadvantaged areas (relatively left behind) in Indonesia. Since its establishment in 2002 separated from Kupang, it becomes autonomous regency classified as daerah pemekaran baru (new expansion area). It is one of the regencies in NTT province, situated at the most southern part of Indonesia's archipelago. The regency has its seat (capital) in Ba'a.

The population was 119,711 as of the 2010 census. Rote-Ndao has an area of 1280.10 km2 consisting of 96 islands of which only six islands are inhabited, they are: 1) Rote Island with a 97 854 ha, 2) Usu Island with an area of 1940 ha, 3) Nuse Island with an area 566 ha, 4) Ndao Island with an area of 863 ha, 5) Landu Island with an area 643 ha and, 6) Do'o Island with an area 192 ha), and the other 90 islands are uninhabited.

The poverty is at 32.10 per cent, population growth is 1.6 per cent and the unemployment rate reached 5.36 percent. Average economic growth over five years is 5.02 percent, per capita income is Rp.6.081.417 or equivalent of Rp.506.785 or (52,67US Dollar) per month, still far from the minimum wage in NTT with Rp.950.000 or (98,72US Dollar) per month.

Economic structure is dominated by sectors of agriculture, livestock, plantation, industry, forestry, craft, fishery, marine, mining and tourism. The regency is divided into 10 sub-districts (Landu Leko, Lobalain, Ndao Nuse, Pantai Baru, Rote Barat, Rote Barat Daya, Rote Barat Laut, Rote Selatan, Rote Tengah and Rote Timur) with 82 villages (desa) and 7 villages (kelurahan)¹⁵ spread throughout these sub-districts.

Vision: To reach a life with dignity for Rote-Ndao people

Missions:

 Improving the management and utilization of human resources, coastal and marine;

- Increasing production and productivity of cultural resources;
- Creating jobs based on democratic economy;
- Improving people's basic needs (health, education, and social welfare);
- Developing information technology;
- Improving regional economic growth, which is based on the development of economy and geography;
- Increasing the supply and distribution of public infrastructure;
- · Developing tourism and local culture;
- Improving implementation and good governance and;
- Developing engineering and innovation of science and technology

The government is ambitiously putting the effort to reduce the poverty rate and reach a better life for Rote-Ndao people with dignity by focusing on development concepts include: *minapolitan* (development of coastal areas); *agropolitan* (development and planning from below); *integrated region mandiri* (autonomous region); development regional master plan and implementation of tourism enterprises and Development of border areas priority (sea borders).

Rote-Ndao has low HDI and high rate of poverty more than 50percent; nevertheless it has reduced in the last few years to 32,10per cent.

The climate is very dry with lack of clean water particularly during dry season. A short rainy season, rain falls in late December to mid of February then followed with dry season throughout the year.

¹⁵ *Desa* is referring to village in rural areas where the chief is elected by people/community and *Kelurahan* refers to village in the city/town where the chief is elected by the government (Regent/Mayor), the chief is called *Lurah* and he/she is a civil servant.

Farming (dry land farming) is the dominant sector, beside livestock and fishery without competitive sectors.

Health infrastructure is very basic, 1.e.: there is only one Public Hospital with capacity of 25 beds located in Ba'a; 6 Puskesmas (public health clinics) with its own pharmacies (Rote Timur, Rote Tengah, Pantai Baru, Lobalain, Ndao Nuse and Ba'a), and two private pharmacies in Baá; 9 polyclinics (Rote Timur, Rote Tengah, Pantai Baru, Lobalain and Rote Barat Laut); and 83 Puskesmas Pembantu (subsidiary public health clinics) throughout villages in Rote-Ndao.

Common diseases found i.e.: tuberculosis, ISPA (respiratory infections), diseases of muscle, other diseases of upper respiratory tract, infectious skin diseases, allergic skin diseases, myalgia, severe gastritis, infectious diseases of the intestine, malaria without laboratory check and diarrhea.

Education system in Rote once was very advance during the colonial time but it has declined dramatically. In the past, this tiny island delivered Indonesia's top scholars and inventors i.e.: W.Z.Johannes (first Radiologist in Indonesia) ¹⁶, Herman Johannes (Rector of Gadjamada University of Jogjakarta in 60s), Adrianus Mooy, Indonesian Governor Bank in 90s who also served as UN-ESCAP Secretary General *under Koffie Anan*, etc. Higher education found in Rote much earlier, i.e.: Theology school in Ba'a established in 1902 but then the school moved to Kupang in 1920. Long declined decade puts Rote's education system at low rank at present day, there are 20 Kindergartens (located only in Rote Island); 129 Elementary Schools found throughout villages in every sub-districts; 21 Junior High Schools (located only in Rote Island); 12 Senior High Schools (located only in Rote Island) and 1 university located in Ba'a.

Religious tolerance in Rote-Ndao is quite harmonious. Protestant is the majority with 337 churches spreads throughout the islands, followed with Catholic with 12 churches (11 churches in Rote island 1 church in Ndao island), Islam contributed in regency with 10 mosques are located in Rote Island, and 1 *Pura* (Hindu Temple) in Rote Island. In Ba'a, there is a church located side by side to a mosque. The spread of Christianity in Rote Island started during colonial time, a record shown by book of Luke translated to Rote dialect in 1895 (Ragi Carita 2, Sejarah Gereja di Indonesia 1860an – Sekarang, Dr. Th van den End & Dr. J. Weithens. S, BPK Gunung Mulia, 1999).

Social activities are high supported by various and diverse civil society organizations as well as cultural activities.

Roads are divided into three categories and they are: provincial roads; district roads and village roads that made them into a total length of 706,025 km¹⁷. Roads that have been paved: 207,910 km; gravel roads along: 199,99 km, dirt roads:73,00 km (in the year 2007) and unspecified roads about 81,827 km. In total, roads are in good condition (have been

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¹⁶ http://en.wikipedia.org/wiki/Wilhelmus_Zakaria_Johannes

¹⁷ http://ntt.litbang.deptan.go.id/

paved): 219,58 km; medium conditions:91,20 km; bad conditions: 62,44 km and severely damaged (very bad conditions):34,68 km¹⁸.

Water ponds are built by the government to reserve water for farming and feeding the animals during the dry season. Currently there are 15 water ponds built in Rote.

Rote Green is also one of the ambitious policies by requesting every house hold to plan 5-10 trees. The response of society about Rote Green is quite high.

The Lekunik airport is situated in Sanggoen village, district of Lobalain and it is the only airport in Rote-Ndao. The Lekunik airport has runway size of 900×23 m. The airport is currently served the Merpati Air Lines 1 time a week (Friday) with the Cassa 212 aircraft types and Transnusa Trigana 3 times a week (Monday, Wednesday, Saturday) with ATR 42 aircraft. It takes around 15 minutes mileage from Kupang to Rote¹⁹.

Ports are located in *Ndao* (*Ndao-Nuse District*), *Papela* (*East Rote District*), *Baá* (*Lobalain District*) and *Pantai Baru* (*Pantai Baru District*). Beside these four main ports, there are also local harbors such as *Oelaba* (Rote Northwest) and *Batutua* (Rote Southwest). Traffic of goods and services generally rely on the ferry every day from Kupang to Ba'a and Pantai Baru about two-four hours.

Water sources include Regional Water Company (PDAM), the provision of water by public utilities served 18 % of total population²⁰; desalinate of sea water into drinking water (in Ndao-Nuse and Landu); protected well and artesian well 57,08%; unprotected well 5,13%; protected spring 15,29%; unprotected spring 4,16%; river 0,70 % and others 0,59%²¹.

Electricity facilities are PLN (Power Company), PLTS (solar power) and solar cell served only half of the total households in Rote-Ndao.

Sanitation is still a main concerned. About 20,19 % of the total households in Rote-Ndao do not have toilet. Those who do not have toilet throw feces in the forest or bush. Lack of water added to the lack of sanitation facilities.

Waste Management is also still lacking. There is also lack of government funding in tackling waste management in Rote-Ndao.

Markets are found in Keka (district of south Rote), Metina (district of Lobalain) and Busalangga (district of northwest Rote).

Banks services are Bank NTT and BRI. Both Banks are located in Baá.

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¹⁸ ibid

¹⁹http://id.wikipedia.org/wiki/Bandar Udara Lekunik

²⁰ http://moral-politik.com/2013/05/

²¹ http://jamsos.blogspot.nl/2013/02/ketika-lens-memimpin-rote-ndao-3-habis.html

Tourist objects include *Nemberalla* and *Boá* for surfing (hosting international surfing every year in the month of October); unique islands of *Ndana* and *Doó*; Beautiful beach of *Mulut Seribu, Oeseli, Tongga, Sanama, Batutua, Oenggae, Tesabela, Nusakdale, Leli* and *Papela*; *Batu Termanu*; *Hus* (cavalry celebration for better harvest); Weaving Village of *Namodalle*; Snake-necked turtle (Chelodina mccordi) is on the list of CITES (Convention on International Trade and Endangered) and many other cultural attractions/ceremonies throughout the region.

Farming system is divided into paddy farming and dry land farming. There are five types of paddy farming: irrigation, semi-irrigation, small irrigation, rural irrigation and rain-fed. While dry land farming is divided into farmyard, farm, farm fields, and pasture (grassland).

The main agricultural products are rice, maize, sorghum, onion, chili, watermelon, cassava, sweet potato and peanuts. The total area of wetland is 17 515 ha but only 9,613 hectares is used. While the total area of dry land is 30157.90 hectares but it only used for the cultivation is 7,795 hectares. The crops productions increased in the last few years, particularly in the year 2011 such as corn rose nearly 5 times compared to 2010, from 2,016 tons in 2010 to 9353.6 tons in 2011, or 364%. Furthermore, rice commodities also rose nearly 5 times compared to 2010, from 11 492 tons to 52,592.4 tons or 358%. Other products are also increased such as sorghum, cassava and sweet potatoes (Ir. Nur Aini, M.si, 2013)²².

Forestry is divided into nature reserves 3,562 ha, protected forest 17929.73 ha, production forest 11.131,90 ha and mangrove forest 7157.29 ha. The main forest products are Palmyra palm tree (pohon lontar), Seedlac/shellac (kutu lak), hardwood trees (teak and others) and kushambi tree.

Fishery main products are seaweed, calamari and grouper. The total fishing areas is 112.210 ha. Fishery production is still low, a few factors underlined the low fishery productions such as seasonal fishing, limited fishing method, government regulations as well as limited market possibilities.

Mining has the potential to develop in Rote-Ndao. Coral reef, gypsum, calcite, aragonite, clay, gemstone, manganese, limestone and also oil contents are found at the southern coast but not yet explored. It will be further investigation about the potential mineral deposits in the area.

Industry in small scales (domestic industry) are taking part in the economic activities such as weaving, goods from cement and calx, soy foods and nuts, and various types of sugars made from palm juice (nira).

Craft is known over generations especially in rural communities of Ndao. They produce jewelries (rings, bracelets, necklaces, earrings) or accessories such as traditional cloths, tiaras and *pending* (belts).

²² http://nuraini460.wordpress.com/page/2/

Wickerwork from crops, cane and bamboo are made to various products such as the traditional hat (tií langga), traditional music instrument of sasandu and bags.

Economic growth can be improved from the services sector i.e.: tourism, domestic industry, agriculture, livestock and fisheries. In terms of domestic industry, there is a need to form cooperatives to accommodate and market the craftsmen's products.

7.2 Weaving in Rote-Ndao Regency

In the entire regency (96 islands with 6 islands inhabited), weaving is found only in Rote Island and Ndao Island. Yet, today weaving is more active in Ndao than in Rote. Since Rote-Ndao became independent regency separated from Kupang, an extended work has been undertaken to stimulate the revival of weaving activities in Rote Island. Currently, few ikat centers are established in Rote such as in Namodalle village (Ndaonese migrants), Nemberalla village, Faifua village, Onatali village, Edalode village and serubeba village.

Nevertheless, weaving ikat in Ndao Island alone made up of 197 units from the total of 215 business units in entire Rote-Ndao regency. The entire 215 existing business units can produce 24,030 sheets that values of 978 million rupiah (75.858 US Dollar). This industry sector employs labor of 252 people.

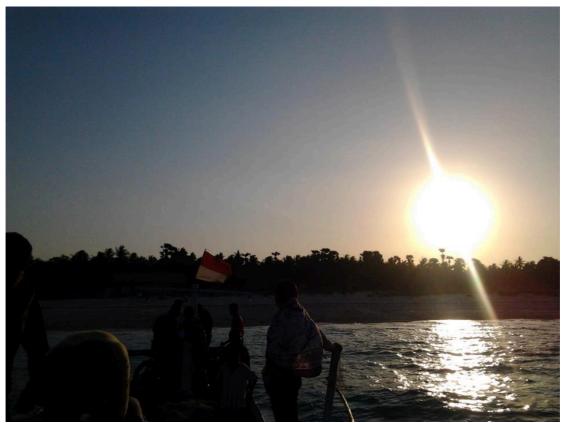
Despite the efforts to increase weaving activities in Rote farming, livestock and fishing are still dominant unlike in Ndao Island where people are depending on weaving and handcraft heavily due to limited farming possibilities. Lacks of fresh water and long dry season have 'forced' the Ndaonese to focus on the weaving and silver/gold handmade as an alternative livelihood over centuries.

At present day, ikat motifs of both islands (Rote and Ndao) are 'blended' with one another²³.

7.2.1 Ndao Weaving:

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²³ Linguistic and Typological sources pointed to the relation of Ndaonese and Sawunese (Ndaonese are originally from Sawu), however it is worth to conduct a further investigation on the relation of Ndao and Sawu ikat motifs (at early days) to today and (when and how) Ndao ikat motifs evolved into Rote ikat motifs.



Ndao Island is very remote from out-side and global politics; it takes 1 1/2 - 4 hours by traditional boat from Rote. Between months of January to March the island almost complete closed from outside world due to bad weather condition with strong wind and high waves. The island is small in size, the length is about 7 km and the wide is about 4 km. It is situated at southernmost of Indonesian archipelago. The total population is approximately 2,600 people. The Ndaonese depends on crafting (weaving, silver/gold handmade), fishing, small animal keeping (dogs, pigs and chicken) and small farming.

Ndaonese Weaving are found in both Rote Island (Nemberalla Village, made up of Ndaonese migrants) and in Ndao Island. The ikat motifs are dominated with sea animals (hua ana langi, ikan garagahing, mada karoko and duri laut. And hua ana langi is Royal's motif²⁴.

Ndaonese are known for centuries about their weaving and silver handmade. Every girl, women, men and boy are involved directly in weaving. The women weave, the men look for the materials from forest or other islands. After the fabric is ready to be sold the men will carry the products and go by boat to sell them in other islands. The money they get from selling the products they will use to buy food (rice, sugar, cooking oil, etc.) and also to schooling their children.

Ndaonese are also known as traditional traders and merchants. Life demands have driven them traveling with traditional boats to other islands including that Rote, Timor, Sawu, Flores, etc to sell their hand made silver/gold and ikat. This traditional way of trading (door to door) has been long existed in the lives of Ndaonese. Sadly, during bad weather with high current and strong tidal, they Ndaonese are unable to travel

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²⁴ http://ataupahfamzz.blogspot.nl/2012/05/about-tenun-ikat-pulau-rote.html

outside Ndao with their traditional boats to sell their products. The island often cut off from outside for months, as result the crafts are unsold for months.

The Ndaonese women believed that weaving is their destiny. Weaving is compulsory for every Ndaonese girl. Every girl turns to puberty will start learning to weave. When she is ready for marriage she has by then already woven a *sarung* and *selimut* that she will wear on her wedding. The maturity of Ndaonese woman is 'determined' by her ability to produce *sarung* or *selimut*. She could then expect marriage proposal from a man or man parents who would be interested on her to be his wife or in law. This ability to weave and producing *sarung* and *selimut* is not only until an Ndaonese woman gets married but it continued practicing until today by women as source of livelihood in Ndao. The ability of Ndaonese women to contribute to the economy with their ikat weaving is known over generations. Sadly, there are not many sources explicitly reporting the contribution of Ndaonese women in economy and in the development of rural economy at large.

The traditional weaving with traditional back straps loom is still practicing in Ndao until now. Weaving with natural products including cotton, and vegetable dyes i.e.: Morinda, *nila* (indigofera), turmeric, etc was long existed in Ndao but unfortunately, it has changed in the last 40-50 years. The Ndaonese still continued weaving but instead of using natural dyes and cotton they use chemical dyes such as Naphthol, wantex and depending on the imported yarns.

The effort to revitalize Ndaonese weaving tradition has taken place since late 90s but the effort has not fully succeeded, most of Ndaonese weavers still use chemical dyes until today.





(Photo: Weaving under a big tree, Ndao Island, October 2012)

7.2.2 Ndaonese Migrants Weavers in Namodalle Village (in Rote Island)

The traders and weaving nature of the Ndaonese have brought the Ndaonese to places outside Ndao such in Rote Island. The last migration of Ndaonese to Rote Island took place in the late 90s to a village called Namodalle, near Ba'a (the capital of Rote-Ndao). There are about 50-60 households people now settled in Namodalle village and formed themselves into a weaving community called Kampung Tenun or weaving village. This latest migration took place to fulfill the needs of Ndaonese children for high education. Before 90s, there were only elementary schools found in Ndao. Every boy or girl who wanted to pursue high level than elementary school have to obtain the education in outside Ndao and most of them go to Rote. The traditional boats are the only transportation facilities in Ndao. Most parents had to travel forth and back every day bringing their kids to study in Rote. Most of the women when they took their kids to Rote to study, they also took along their weaving equipment. While waiting for the children at school they wove. When bad weather occurred they could not cross the sea back to Ndao they then stayed in Rote, they made temporary shelters from plastic or palm leaves. This temporary settlement attracted more Ndaonese to Rote, the place not only served as temporary settlement but it is also place for selling their handmade products and also weaving. These new form of community with their handmade crafts took the attention of local Rotenese. Eventually a local Rotenese provided a plot of land to these 'nomadic' craftsmen to live that is now called Kampung Tenun Namodalle. Since then the place become one of the touristic spots as well as ikat market/village in Rote Island.

While, the weaving activities in Ndao mainland is also continued till today, these Ndaonese migrants in Rote Island continued contributing to the economy in Rote as well as in Ndao Island. It is clearly proven how this traditional community sustaining the livelihoods through weaving and maintains their cultural heritage throughout generations and places.

"Tou Ndao Loi-loi, Ina Ndao Na`a Mu`dak " 25 (Ndaonese Men working hard outside, Women do nothing)

.....A significant role of women within a "paternalistic" community could be obtained when they are given the control over the whole process of weaving; marketing; royalties including the authenticity of their works²⁶.

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²⁵ ibid

²⁶http://www.womeninworldhistory.com/silk-road-11.html



(Photo: Weaving activities in Kampung Tenun Namodalle, Rote Island, October 2011)



(Photo: Kampung Tenun (Weaving Village), Namodalle, Rote Island, October 2011)

VIII. Appendix (see attachment)

56

TEKNOLOGI PEWARNAAN BENANG DENGAN ZAT WARNA ALAM (ZWA) UNTUK TENUN IKAT

PELATIHAN PEWARNAAN ALAM UNTUK TENUN IKAT Ba'a, 19 - 23 September 2011

Bahan – bahan yang digunakan dalam pewarnaan alamiah ini terdiri dari Daun – daun, batang, kulit dan kembang dari tumbuhan yang tumbuh di sekitar, misalnya:

1. Secang

: daun, batang dan kulit

: daun, batang, kulit 2. Mahoni

: daun dan buah 3. Pepaya

: daun, buah dan kulit batang 4. Mengkudu : daun, buah, batang, dan kulit 5. Ketapang

6. Kelor/marungga : daun dan kulit

7. Bunga Andong : daun

: batang, kulit buah 8. Pinang

: kulit, sabut 9. Kelapa

: daun, batang, kulit 10.Mangga : daun, batang, kulit 11. Jambu

: kulit 12. Kayu Manis

: daun, kulit buah, kulit pohonnya 13. Klengkeng

: Kembangnya 14 Rosela

: kulit, batang, daun 15. Nangka

16. Bawang Merah : Kulitnya

17. Kembang Mawar : Kembang yang suadah layu,

: daun, batang 18. Tauk : Kembangnya 19. Bunga Asoka

20. Srkaya/Anonak : Kulit, daun dan batang.

: daun 21. Kumis Kucing

22. Johar/Kayu besi : kulit, daun, batang

: kulit buah, batang dan bijinya 23. Nitas

: daun, batang 24. Koleng susu

: daun, kulit 25. Jati

daun, batang dan kembang

daunnya 27. Tembakau · daunnya za Teh

: kulit buahnya Delima Merah

: buahnya Cabe Busuk : Kulit, daun Pohon asam

32 DIL

CARA - CARA PEWARNAANNYA:

Pewarnaan Alamiah dengan proses Mordan. Proses mordan terdiri dari 2 (dua) macam yaitu mordan awal dan mordan akhir.

Bahan – bahan Mordan ada 3 macam sbb:

1. Tunjung

2. Tawas

3. Kapur

Proses pewarnaannya sbb:

Rendam Tunjung, Tawas, dan Kapur di dalam ember masing – masing dengan air sebanyak 5-6 liter air biarkan terendam selama 1 malan.

1. Benang dicuci dengan sabun kemudian bilas sampai bersih lalu benang diatuskan/diangin – anginkan

2. Daun/kulit/batang pohon atau bunga yang talah disiapkan, dimasukan kedalam 5 liter air lalu direbus/dimasak selama 1 jam sampai bahan tersebut mengeluarkan warna, angkat dan saring air rebusannya kemudian rebus lagi diatas tungku dan masukan benang rebus selama 1 jam, angkat benang lalu celupkan kedalam larutan tawas, tunjung, kapur selama ± 25 menit sehingga kita mendapatkan perubahan warna pada benang yang ada

3. Dapat dilakukan berulang – ulang untuk mendapatkan warna yang

4. Setelah benang berubah warna sesuai keinginan kita maka angkat lalu atuskan sampai hampir kering, kemudian bilas dengan air sampai bersih baru beri kanji, jemur benang ditempat yang tidak terkena panas matahari.

Melalui proses ini akan menghasilkan beraneka ragam warna alami.

































Day 2. 25/10/12

- Gathering at Port of Tenau-Kupang & leaving to Rote Ndao Regency by fast ferry-boat Official Welcoming at Rote Ndao Regency Hall
- Visiting Centre of Ikat, Kampung Ndao, Kelurahan Namodale, Ba'a
- Informal discussion of ikat production & stay at Anugerah Hotel, Nemberala Beach





The patterns of Rote Ndao ikat weaving

sita@dishakti













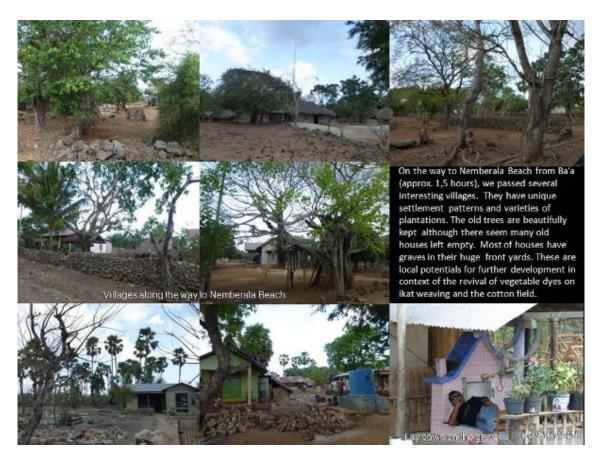
















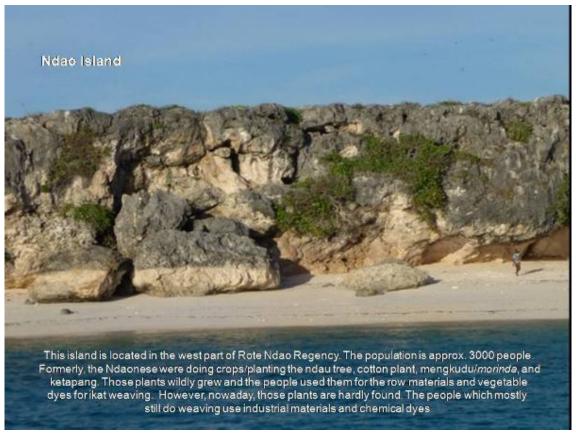






















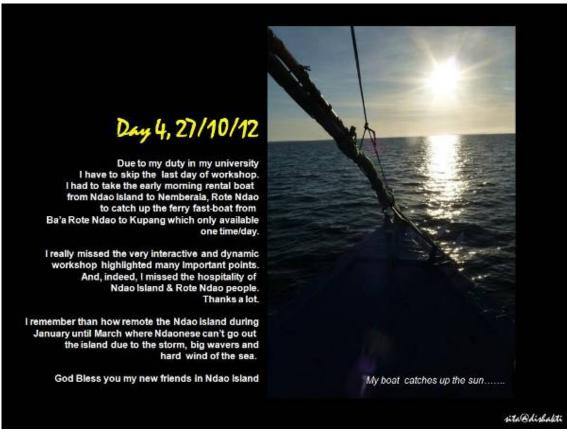




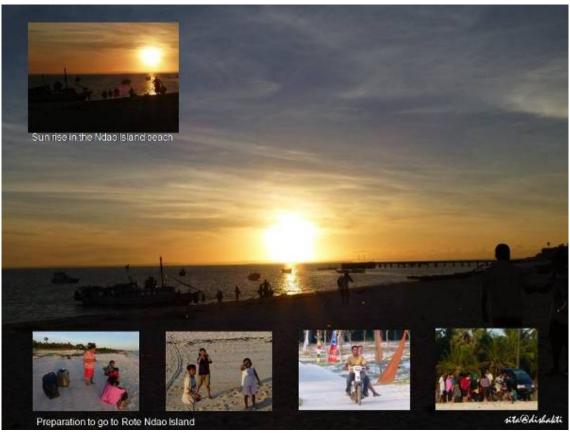




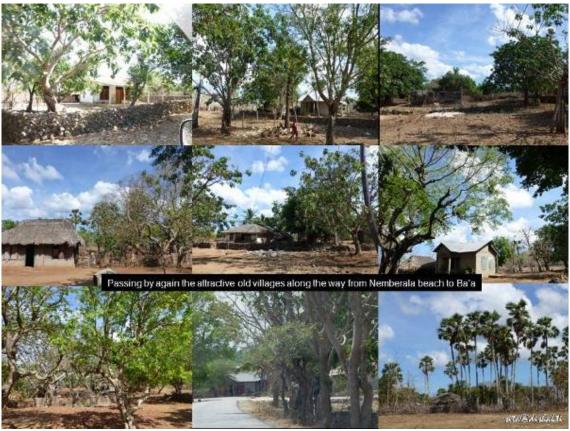






















The Ndao Island is, indeed, one of the saujana heritage of Indonesia – island heritage -. The conservation of Ndao Island ecosystem -- incl. replanting of ndau tree, cotton, mengkudu, ketapang -- may bring the revival of Rote Ndao's natural dyes Ikat, and the community welfare

sita@dishakti

Appendix III a: FIELD NOTES FROM NDAO, Simon Marks, Bali, Indonesia

Weavers are still using Napthol dyes on Ndao. These are extremely toxic, and have been banned in India. Natural dyes are no longer used on Ndao. We were told nobody remembers how to dye with them. It could be that the weavers are using chemical dyes due to the fact that chemical dyes give very quick results whereas natural dyes are much more labour intensive.

Most of the woven ikat sarongs and selandangs use a harsh chemical red and black palette. There is no indigo colour- even chemical. We were told that "Indao" means "indigo" in the local language... if this is true, it would imply that Indigo used to be grown and used on the island, but we saw no evidence of it growing wild, although older members of the community mentioned that they remembered indigo had been grown once upon a time.

In the past, cotton was also grown on Ndao, but is no longer. Cotton yarn now has to be imported.

The origin of motifs is unlear. Many of the weavers say that they are indigenous. This needs further research as many of the motifs are the same as those of Savu.

We were told that the prople of Ndao claim their ancestry from Savu, so it could be that the motifs ARE indiginous in the sense of being brought over from Savu by the original settlers, with whom the people of Ndao share close cultural links to this day. However motifs on Ndao , currently bear many similarities to that of Rote, which I was told was a more recent development. More research needs to be done on this subject to understand better the motifs' meaning and evolution.

The men of Ndao traditionally make Jewellery as their main source of livelihood. Especially the women's headdress- a flat piece of silver, inscised with a central pattern in the shape of a crescent moon with 2 stars on each end of the upward pointing crescent, with a central star attached to a small strip of silver seem to indicate the traditions of the older lunar rituals and beliefs. There are also pendants which are discs with slight raised centres, on a chain that could also be a reference to the ritual of the lunar cycle.

The jewellery worn by the women bears a direct and obvious link to traditional lunar cycles & rituals.

Is there any remnant of the lunar ritual & symbolism in the motifs of the ikat of Ndao ? I did not notice anything that resembled the full moon, crescent moon or stars. However I probably need to research more fully the symbolism of the Ndao motifs. Trade links with the Dutch from INdia during the time of the V.O.C, with the passion for traded patola cloth, the Chinese, and Western influences all make for a diverse melting-pot of designs and motifs passed to and fro, with the ebb and flow of fashion that makes something purely indigenous quite difficult to trace.

Next Steps:

Need to eradicate Napthol dyes from Ndao. How to do this: subsidised natural dyes?

- Training in the techniques of natural dyeing, and the disposal of used dyestuff and grey water.
- Training in the recognising of indigenous natural dyes to be found on Ndao
- Reintroducing natural indigo
- Possibility of growing cotton once more on Ndao, together with training of ginnying, spinning etc.
- IS there a viable space to grow the cotton.
- How many crops could br grown and harvested in a year.
- Need A LOW water consuming cotton. Water a problem on Ndao.
- Local cotton, handspun and handwoven would save the women from buying cotton at market prices: Enough for them to weave their own specialised textiles.
- Communal washing facilities for the yarns.

Design Recommendations

Women on Ndao want to weave and have a steady income from their ikat textiles. They are proud of their weaving skills, and want to reach a wider audience. People coming to Ndao, however, do not buy many textiles- how can this be improved?

Using traditional motifs, but with natural dyes, for a softer more harmonious colour palette. Natural morinda, and natural indigo, combined give the traditional black, and the natural mengkudu red is much softer earthy red. Also by using new motifs and designs to create contemporary ikats .

HOW TO DO THIS?

What do the women actually want themselves? How do they perceive their textiles? How do they think people from outside their community view their textiles? What Cultural value do they place on their textiles?

Create a strong thread between the weaver and the customer. The potential customer has to be more informed about the Ndao textiles, the weavers, and their community.

What type of textiles do the women want to produce? The women need to be clear about what they all want

The weavers need to reach a wider audience. Traditionally the men go off island and sell the women weavers' textiles.

What is the best way to sell these textiles to reach a wider audience? Internet is one possible solution...establish an internet connection on Ndao, so the weavers and their community can have a site which showcases their work, themselves, and their community, which is accessible to all worldwide.

Internet would enable the weavers to communicate directly with potential customers, reaching an infinitely larger amount of people.

NDAO NOTES:

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The jewellery worn by the women bears a direct and obvious link to traditional lunar cycles & rituals.

Is there any remnant of the lunar ritual & symbolism in the motifs of the ikat of Ndao? I did not notice anything that resembled the full moon, crescent moon or stars. However I

probably need to research more fully the symbolism of the Ndao motifs. Trade links with the Dutch from INdia during the time of the V.O.C, with the passion for traded patola cloth, the Chinese, and Western influences all make for a diverse melting-pot of designs and motifs passed to and fro, with the ebb and flow of fashion that makes something purely indigenous quite difficult to trace.

Conclusions:

Need to eradicate Napthol dyes from Ndao. How to do this: subsidised natural dyes?

Training in the techniques of natural dyeing, and the disposal of used dyestuff and grey water.

Training in the recognising of indigenous natural dyes to be found on Ndao Reintroducing natural indigo

Possibility of growing cotton once more on Ndao, together with training of ginnying, spinning etc.

IS there a viable space to grow the cotton.

How many crops could br grown and harvested in a year.

Need A LOW water consuming cotton. Water a problem on Ndao.

Local cotton, handspun and handwoven would save the women from buying cotton at market prices: Enough for them to weave their own specialised textiles.

Communal washing facilities for the yarns.

MARKETING

Women on Ndao want to weave and have a steady income from their ikat textiles.

The weavers are proud of their weaving skills, and want to reach a wider audience.

People coming to Ndao not buying many textiles- how can this be improved? The women need a steady flow of customers

Using traditional motifs, but with matural dyes, for a softer more harmonious colour palette.

- Natural morinda, and natural indigo, combined give the traditional black, and the natural mengkudu red is much softer earthy red.

Using new motifs and designs to create contemporary ikats .

HOW TO DO THIS?

What do the women actually want themselves? How do they perceive their textiles? How do they think people from outside their community view their textiles? What Cultural value do they place on their textiles?

Create a strong thread between the weaver and the customer. The potential customer has to be more informed about the Ndao textiles, the weavers, and their community.

What type of textiles do the women want to produce? The women need to be clear about what they all want

The weavers need to reach a wider audience. Traditionally the men go off island and sell the women weavers textiles.

What is the best way to sell these textiles to reach a wider audience? Internet is one possible solution...establish an internet connection on Ndao, so the weavers and their community can have a site which showcases their work, themselves, and their community, which is accessable to all worldwide.

Internet would enable the weavers to communicate directly with potential customers, reaching an infinitely larger amount of people.

Dear Aarti & Willem,

Just writing some notes for Aarti for the report on Ndao and was looking at some of my textile books regarding motifs.

I came across a reference that in 1828 -1829 a boat called the *Triton* was sent on a journey from Batavia to explore the natural phenomena of Timor & New Guinea

On board were the pharmacist & surgeon **Heinrich Christian Macklot** and the taxidermist **Saloman Muller.** They visited Kupang and collected textiles from Timor, Rote and Savu.

What is really coincidental is that these textiles and other ethnographic objects from their journey are kept in Leiden at the National Museum of Ethnology. They are kept either under their own names or under that of **Phillipe Franz von Siebold** who acquired some of their material in Batavia.

Muller wrote a report on the expedition, which I believe is still at the National Museum of Ethnology in Leiden.

Would it be possible for me to get hold of images of these textiles, the silver jewellery, and any reference to the textiles that were collected in Muller's report, as it would be very very helpful and important in looking at the development of motifs on Indao, as the Ndaonese claim ancestry from Savu, whose people although now Christians, still attach great importance to rituals of the cycle of life and death and the moon. I purchaesd 2 silver headbands which were the same as those worn by young women who gave us a traditional dance performance on Ndao, they were both shaped like a crescent moon.

Anyways,

gotta dash.

Best wishes, A happy Holi, and Happy Easter,

Simone:)

Appendix III b: Field notes from IIAS Roundtable in Ndao, Aarti Kawlra

Women are weavers, promoters, perservers and wearers of ikat. They are being viewed as bearers of and unbroken tradition and form an integral part of the reproductive and regenerative life of the artisanal household and village community in NTT and until recently also the medium of exchange with other islands in the region. It appears that men were largely involved in processes of marketing often through barter and exchange with silver ornaments. In Sumba, men and women both are involved in the preparation of the thread, dyeing and marketing while weaving is the exclusive preserve of women.

Ikat is a material and symbolic expression of cultural reproduction and gender differentiation: "We begin learning how to weave from 2nd grade onwards. If we don't learn we often have to bear corporal punishment. We think it is important to learn because it is from my mother and she got it from her mother. I am proud to weave my own sarong because if I weave someone else's sarong it is a shame that I cannot weave my own! (emotional response). In fact a girl cannot get married if she has not learnt to weave. Some women also specialize in making upto 180 colors.

Tenun lkat is the aspirational ideal for women both in terms of technical prowess and in terms of its symbolic investment of skill capital. It is believed that wearing every day, ikat loses its power so it must be worn only for special occasions and must be saved as part of a woman's dowry. It is interesting to see how motifs are created and circulated as aspects of identity from one island to another.

Ikat is most importantly a marker of ethnic identity. In Sawu, a differentiation is maintained between motifs for men vs. motifs for women, royalty and commoner, for the dead vs the living. Within the royal polis it was used as a means to ensure social difference. In Rote alone there were 19 kingdoms (as seen in the fashion show) and each one had their own ikat designs, colors/motifs. Today the different regencies represent their cultural heritage and identity through ikat patterns specific to them and are officially recognized as such by the Indonesian state (?). The construction of motifs as ethnic identity is ongoing and some regencies are also using new motifs like the traditional palm leaf hat and the lontar tree.

In the Group Discussion with the weavers from the different regencies, it was clear that weavers are not constrained by tradition or custom and were free to respond to the demands of the market. "We can do any motif" "We only need to know how it is to be sold" were some comments that one heard. Weavers work with handmade motifs drawn on graph paper. They share these with one another and also innovate within this mode of visual representation. It all depends upon the complexity, You make a pattern on paper if it is complex otherwise it is done directly during the process of weaving. When someone said "We can also weave by seeing a sample or an image or picture", there was applause from the audience.

The Indonesian government is finalizing a policy to institute ikat as the official dress for state functionaries and civil servants to be worn on Wednesdays and Thursdays. The dress of the student volunteers/dancers of Rote was sponsored by the government and represented their commitment to tenun ikat as a means for sustainable development. The State has further instituted the Dekranas as a local agency of cultural revival and created local level community ikat centers as part of their

national development plan. The dekranas are also engaged in collecting survey data on number of weaving households, looms, motifs etc. as a means for informing future policy in this regard.

A Question from critical heritage perspective: To what extent is Tenun Ikat being employed within the wider processes of political constituency building at different levels from local to national and even the international? Has ikat joined the list of intangible heritage under the UNESCO banner? Some regency's have already applied for UNESCO certifications following the case of Batik as a national textile of Indonesia. Will this have implications for provincial/regency level copyrights? This is an area for further exploration.

DAFTAR PESERTA WORKSHOP INTERNASIONAL TENUN IKAT DI PULAU NDAO, 25 - 28 OKTOBER 2012 Appendix: IV (List of Participants)

		Alamat			
NO NAMA	PEKERJAAN	Kabupaten	Propinsi	Negara	KET
1 Drs. Leonard Haning, MM	Bupati Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
2 Adrianus Adu, ST	Wakil Ketua DPRD Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
3 Filadelfia Fiah, SE	Anggota DPRD Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
4 Orias A. Muskananfola, SH	Kepala Dinas Perindag Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
5 Drs. Marthen Luther Henukh, MM	Kepala Dinas Koperasi dan UMKM Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
6 Drs. Elisa Suki	Kepala Dinas Perhubungan Komunikasi dan Informatika Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
7 Yacob Doek, S.Pi	Kepala Dinas Kelautan dan Perikanan Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
8 Drs. Heinrich E. B. Mesang	Kepala Dinas Sosial Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
9 Drs. Hendry P. Dami, M.Si	Kepala Badan Lingkungan Hidup Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
10 Ny. Paulina Haning - Bullu, SE	Ketua Dekranasda Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
11 Drs. Hidayat	Kapolres Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
12 J. Marthinus Dami, S.Sos	Kasat POL PP Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
13 Nikolas Palla, S.Fil	Kabag Kemasyarakatan Setda Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
14 Jermia A. J. Messakh, SE	Plh. Kabag Umum Setda Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
15 Ernest Sula, S.Pd	Kabag Humas Setda Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
16 Bernard L. E. Dedeo, SH	Sekretaris Dinas Perindag Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
17 Julius Tulle	Sekretaris Dinas Sosial Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
18 Petrus Lowen, SH	Kepala Bidang P2M Dinas Kesehatan Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
19 Drs. Victor P. J. Manoe	Kabid Perdagangan Dinas Perindag Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
20 Dandels Amalo, SH	Kabid Metrologi Dinas Perindag Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
21 Drs. L. Y. Pah	Sekretaris Dinas Perhubungan Komunikasi dan Informatika Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
22 Silas Monas	Kabid Perhubungan Laut Dishubkominfo Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Tidak Aktif
23 Mrs. Haruko Watanabe	Pemerhati Tenun Ikat			Jepang	Aktif
24 Mrs. Watanabe	Pemerhati Tenun Ikat			Jepang	Aktif
25 Mrs. Tutty Kholid	Designer		DKI Jakarta	Indonesia	Aktif
26 Mrs. Lussy Sihombing	Designer		Sumatera Utara	Indonesia	Aktif
27 Mr. Simon Marks	Peneliti IIAS			Inggris	Aktif
28 Mr. Philippe Peycam	Peneliti IIAS			Perancis	Aktif
29 Mrs. Masako Ijima	Peneliti IIAS			Jepang	Aktif
30 Mr. Willem Vogelsang	Peneliti IIAS			Belanda	Aktif
31 Mrs. Aarti. Kawira	Pakar Tekstil			India	Aktif
32 Mrs. Eriko Aoki	Peneliti IIAS			Jepang	Aktif
33 Mrs. Carol Cassidy	Pakar Tekstil			America Serikat	Aktif
34 Mrs. Laretna Adishakti	Balai Pelestarian Pusaka Indonesia (BPPI)		DI Yogyakarta	Indonesia	Aktif
35 Mrs. Catrini Kubontubuh	Balai Pelestarian Pusaka Indonesia (BPPI)		DKI Jakarta	Indonesia	Aktif
36 Mr. I gede putu Arsawan	Balai Pelestarian Pusaka Indonesia (BPPI)		Bali	Indonesia	Aktif
37 Mr. Merdi Sihombing	Designer		Sumatera Utara	Indonesia	Aktif
38 Erni Ndolu	Sekretaris Dekranasda Kab. Rote Ndao	Rote Ndao	NTT	Indonesia	Aktif
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40 Yuyun giri anti	Praktisi Tekstil		DKI Jakarta	Indonesia	Aktif

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42 Frederik Teilman,	M.Si	Kepala Dinas Perindag Propinsi NTT	Kota Kupang	NTT	Indonesia	Aktif
43 Ny Maria A. M. Ch	hung	Pengrajin	Kota Kupang	NTT	Indonesia	Aktif
44 B. Manuhutu		Pengrajin	Atambua	NTT	Indonesia	Aktif
45 Maria Meok		Pengrajin	Atambua	NTT	Indonesia	Aktif
46 Hermin Nono Tan	ndiano	Pengrajin	Sumba Barat Daya	Pengrajin SBD	Indonesia	Aktif
47 Caroline Laworu		Dekranasda	Sumba Barat Daya	Dekranasda SBD	Indonesia	Aktif
48 Tri Andeos Manu		Tablois Asas		Tablois Asas	Indonesia	Aktif
49 Agus Dadi		Dekranasda	Nagekeo	NTT	Indonesia	Aktif
50 Soleman Ola Kaka	9	Pengrajin	Nagekeo	NTT	Indonesia	Aktif
51 Yustina Makunim	au	Pengrajin	Alor	NTT	Indonesia	Aktif
52 Kuantari M. Maki	n	Pengrajin	Alor	NTT	Indonesia	Aktif
53 Sariat Libana		Pengrajin	Alor	NTT	Indonesia	Aktif
54 Farida Lalang Puli	ing	Pengrajin	Alor	NTT	Indonesia	Aktif
55 Reimila Savana		Media Paradise		Media Paradise	Indonesia	Aktif
56 Des Amalo		Media Indonesia		Media Indonesia	Indonesia	Aktif
57 Alexander Fanoe		Wartawan Tabloid Jakarta		Wartawan Tabloid Jakarta	Indonesia	Aktif
58 Rambu M. Didi		Pengrajin	Sumba Timur	NTT	Indonesia	Aktif
59 Juliana A Sine		Pengrajin	Kota Kupang	NTT	Indonesia	Aktif
60 Maria Paleleng		Pengrajin	Nagekeo	NTT	Indonesia	Aktif
61 Nanda Eliani		Wartawan Tabloid Jakarta		Wartawan Tabloid Jakarta	Indonesia	Aktif
62 Welmince Ratu		Pengrajin		Pengrajin Pusat	Indonesia	Aktif
63 Desa Yosep Kelen	l	Dekranasda	Kota Kupang	NTT	Indonesia	Aktif
64 Matheos Antasog	ge	Dekranasda	Kota Kupang	NTT	Indonesia	Aktif
65 Marselina A. Pah		Pengrajin	Kota Kupang	NTT	Indonesia	Aktif
66 Philep Ola Beda		Dekranasda	Alor	NTT	Indonesia	Aktif
67 Rambu K. Y. Mbili	iyora	Ketua Dekranasda Kab. Sumba Timur	Sumba Timur	NTT	Indonesia	Aktif
68 L. P. Pandango		Ketua Dekranasda Kab. Sumba Barat	Sumba Barat	NTT	Indonesia	Aktif
69 Marthen L. Sing, S	SH	Camat Ndao Nuse	Rote Ndao	NTT	Indonesia	Aktif
70 Irawati Fatu		Pengrajin/ Instruktur Tenun	Rote Ndao	NTT	Indonesia	Aktif
71 Yeskial Faah		Sekretaris Camat Ndao Nuse	Rote Ndao	NTT	Indonesia	Aktif
72 Dorce Lusi		Pengrajin/ Instruktur Tenun/ Pengusaha	Kota Kupang	NTT	Indonesia	Aktif
73 EMILIA KOTTEN		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
74 SALENA LUSI		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
75 CENDANA YOLA		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
76 ILDA M. APLUGI		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
77 DORTIA FIAH		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
78 MERI FIAH		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
79 JAHENDA SALEH		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
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82 BERTHA FRANS		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
83 FELDELINA FIAH		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
84 DORSILA BULA		Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif

NO NAMA PEKERJAAN						
NO	NAIVIA	PENERJAAN	Kabupaten	Propinsi	Negara	KET
85	FINA FIAH	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
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87	Simon O. Zaharias	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
88	Jeki K. Patola	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
89	Melni J. Messakh	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
90	Antonius Soru	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
	Johana Ataupah	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
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93	Ferdy Latuparissa	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
94	Yandri Mbado	Staf Dinas Perindustrian dan Perdagangan	Rote Ndao	NTT	Indonesia	Aktif
95	BERTHA EBA	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
	YULIANA FEOH	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
97	ANCE FANDU	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
98	RIN LILO	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
	ESTER LILO	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
100	BESA FIAH	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
	DORIS DJOH	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
102	MERIANA FATU	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
103	SENA LUSI	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
104	DOLFI LIU	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
105	MARGARITA KOTTEN	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
106	MARIANCE DJOH	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
107	MARTI YOLA	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
108	WATI KOTEN	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
109	YULIANA LAGI	Pengrajin	Ndao, Rote Ndao	NTT	Indonesia	Aktif
		PENGRAJIN DI NDAO YANG MENGIKUTI PEMBUKAAN DAN AKT	IF PADA HARI PERTAMA	KEGIATAN	r	
	ATI FEH					
	LUISA FEH					
112	ERLIN NDUN					
	MUNA NDUN					
	AISA A. TAYANG					
	HANA NDUN					
	GUSTI LUSI					
~~~~	FINCE LUSI					
	IN LUSI					
	AMINA KAU					
	ANIKA FEOH					
******	DORIS DJOH					
	SARA BOLLA					
·	YULIANA MBEA		•••••			
	SWEMPI NDOLU					
	KRIS NDOLU					
	YUSTIN YOLLA					
127	NURYANI JOH					

NO	NAMA	DEVEDIAAN	Alamat			
NO	NAMA	PEKERJAAN	Kabupaten	Propinsi	Negara	KET
128	ANTONETA BOLLA					
129	ATARA JOH FINA YOLLA NATI KOTE					
130 F	FINA YOLLA					
131	WATI KOTE					
132	NORLINA FIAH ARNI APLUGI					
133	ARNI APLUGI					
134	TONI KOTEN ELLA KOTE WINDA FATTU					
135 E	ELLA KOTE					
136	WINDA FATTU					
137	APLIANA GIE ADOLFINA LAY					
138	ADOLFINA LAY					
139	MERI LODOH					
140	ASNAT DAY MARTI YOLLA					
141	MARTI YOLLA					
142	SALSE MUDA THA ABE					
143 E	ETHA ABE					
144 [	OORTIA LEDOH					
145	DORTIA LEDOH SOFIA BATU					
146 l	INDA LOLE					
147 F	RANSINA LODOH BERTHA NDUN					
148 E	BERTHA NDUN					
149 H	HALENA GIRI					
150	CENDANA RAJA					
151	MARGARITHA KOTTEN					
152	GIN ENGGE RIBKA ABE					
153 F	RIBKA ABE					
154	/ANE BELA -ILDA ABE MARIA BULLA					
155 F	FILDA ABE					
156	MARIA BULLA					
157 E	BELANDINA YAMI ERNI RANOH					
158 E	ERNI RANOH					
159	OSINA POTTI					
160	GUSTI LUGI					
161	/OSINA POTTI GUSTI LUGI NAR BULLA					
162	/UL TAE					
163	ANA LEDOH					
164	NONA LEDOH					
165 I	NONA LEDOH NA SEREH RA APLUGI					
166 I	ra aplugi					
167 H	HENDERINA FEOH					
168	CENDANA GIRI					
169	/UARNI BAA					
170	DKSEL FEOH HENDERIKA NDUN					
171 I	HENDERIKA NDUN					

NO NAMA	PEKERJAAN	Alamat			
	I ENERGY OUT	Kabupaten	Propinsi	Negara	KET
172 OCE LEDOH					
173 MARIA NDUN					
174 SAINANG BEI					
175 NAOMI BULLA					
176 ASNAD BAA 177 AMINA BAA					
177 AMINA BAA					ļ
178 ANI TALLA 179 SAR LUSY					
180 ELISABETH B. MBAU					
181 ORI FANDU 182 WASNI DULI					
182 WASNI DULI					
183 RINCE BAA 184 ELIS PANDI					
184 ELIS PANDI					
185 ERI DULLI					
186 ORPA TULLE 187 ANSI APLUGI					
187 ANSI APLUGI					
188 ETA YAMI 189 MENCI PANDI					
190 YULIANA FANDU					
191 ATRI BAA 192 ESTER TULLE					
192 ESTER TULLE					ļ
193 DELFI LEDOH 194 SIN LEDOH 195 REN FIAH					
194 SIN LEDOH					
195 REN FIAH					
196 NAEMA FIAH 197 RINA TULLE					
197 RINA TULLE					
198 YULIANA RAJA					
199 SARLENCI DULLI					
200 YOSIS DO'A					
201 AGUSTINA YAMI 202 YULIANA YAMI					
203 MIA FANDU					
204 KARIS DO'A 205 RIDA DO'A					
205 RIDA DO'A					
206 LILIANA KOTE 207 TINA LUSI					<b></b>
207 TINA LUSI					<del> </del>
208 DORMA LUSI					<b> </b>
209 ENU LUSI 210 YULIANA FORAH					
210 YULIANA FORAH					<del> </del>
211 IMA BEY 212 LIA LOLEH					<del> </del>
					<del> </del>
213 TINA LOLEH					<b></b>
214 PAULINA BELLA 215 ASNAT LODOH					
215 ASNAT LODOH					L

NO	NAMA	PEKERJAAN	Alamat			
	17/11/1/	T ENERGY WIN	Kabupaten	Propinsi	Negara	KET
216 DESI DJOH						
217 YULIKANA LO 218 RIN KOTA	DOH					
218 RIN KOTA			·			
219 VIKTORIA FAT	TU					
220 NAOMI FATU 221 ATA LUSI						
221 ATA LUSI						
222 YOSIS BUNGA 223 NEMI APLUGI	1					
223 NEMI APLUG	l					
224 ROLIN APLUG	il .					
225 VELSITAS LOC 226 ORDI KOTTA	OOH					
226 ORDI KOTTA						
227 MARI NDUN						***************************************
228 KRIS LODOH 229 SARA FATULI						
229 SARA FATULI						
230 ORPA BOLLA 231 ERLIN BUNGA						
231 ERLIN BUNGA	4					
232 DORIS LENDE 233 SITRINI LENDI	:					
233 SITRINI LEND	E					
234 DEFI FATULI						
235 SELFIANA YO 236 DORCE KOTTI	LLA					
236 DORCE KOTT	EN					
237 ENI FATULI 238 YANI LODOH 239 RANCE						
238 YANI LODOH						
239 RANCE						
240 TRISNA FATTI 241 BERTI NDUN	U					
241 BERTI NDUN						
242 YETI LAMU						
243 PAULINA LUS 244 TIN BELLA	I					
244 TIN BELLA						
245 NONA FIAH 246 ANI FATTU						
246 ANI FATTU						
247 SITA FATTU						
248 MARTIN FIAH	I					
249 EMILIA KOTTI	EN					
250 MARLEN NDL	JN					
251 LILIANA KOTE	EN					
252 MARGARITA	JOH					
252 MARGARITA 253 FELSITAS SINA 254 YULIANA LILO	A					
254 YULIANA LILC	)					
255 YANSE LAULE 256 SARA SINA - F	LA					
256 SARA SINA - F	ATULI					
257 ANITA BULLA 258 NORMA FIAH 259 RODI FATULI					<u> </u>	
258 NORMA FIAH						•••••
259 RODI FATULI						

NO 260 SARCI I	NAMA	PEKERJAAN				
260 SARCI I			Kabupaten	Propinsi	Negara	KET
	KOTEN					
261 WEL P/	AH					
261 WEL PA 262 EMI AP 263 INA ME	PLUGI					
263 INA ME	ENGGA					
264 LIS LED 265 YENI TO	ООН					
266 NENCI	FATTULI					
267 DAMAI 268 SRI RIS	RIS MENGGA					
268 SRI RIS	SI					
269 YULIAN 270 MARTA	NA FIAH					
270 MART	A NDEO					
271 RAHEL	. MENGGA					
272 MAR G 273 ETI LUJ	GIE					
273 ETI LUJ	JI					
274 EDA BE 275 AGUS L	ELLA					
275 AGUS I	LUSY					
276 TINA L	ARI					
276 TINA L/ 277 NONA 278 SELFIA	APLUGI					
278 SELFIA	NA GIE					
279 LEDI AI 280 ELSA B	PLUGI					
281 YAS LE	DOH					
282 BELAN	IDINA DOH					
282 BELANI 283 SELI M	IENGGA					
284 DAMAI 285 ROS LO	RIS FIAH					
285 ROS LC	DLEH					
286 FTA TU	HIE					
287 MAR R. 288 DORTI	RAJA ULI					
288 DORTI	BELLA					
289 RINA D 290 OMI KO	DULI					
290 OMI KO	ОТА					
291 MARIA	A TULLE					
291 MARIA 292 DALI TI 293 TINA LO	ULLE					
293 TINA L	OLE					
294 YUL FA	ATTU					
294 YUL FA 295 SIN TU	ILLE					
296 RIN FIA 297 IN FAT 298 LIN FAT	AH					
297 IN FAT	TU					
298 LIN FA	TTU					
299 AGUS I	КОТА					
299 AGUS F	ATU					
301 MATEL	LDA SEDEH					
301 MATEL 302 DESI FE 303 YUL FIA	ЕОН					
303 YUL FIA	AH					

NO	NAMA	PEKERJAAN	Alamat			
		FENENJAAN	Kabupaten	Propinsi	Negara	KET
	OLFI GALUMBANG					
	GIN GHAHENGGANG					
	MINI FIAH					
	LENA YAMI					
308	NETRI LUSI					
309	TABITA BELLA					
	LIA BELLA					
	MAR DOH					
	SOFIA SISA					
	ORPA SISA					
	TINCE ABE					
	MARIA LOASANA					
316	YATI SEDEH					
317	SINCE SISA					
	EPI APLUGI					
	TRIPOSA LEDOH					
	TERSIA SEDEH					
	SRI BULLA					
	ELA FIAH					
	FIN NDUN					
~~~~	ERI DULI					
	MAR BELA					
326	OMI BULA RIKA FEOH					
328	AGUSTINA RAJA RITA LUSI					
	WARTI APLUGI					
	NONCE RIFAI					
	LUISA FATU					
333	JERI NDUN					
	FRANSINA BA'A					
	YANSE DULI					
336	ULI LUSI					
	YATI BA'A					
	YULIANA FEOH					
	HENDERIKA FEOH					
340	SARA LUSI NONCE LEDOH					
342	OKSEL FEOH					
	ATRI BA'A					
344	CENDANA GIRI					
	ASNAD BAA					
346	SAINANG BEI					
347	AMINA BAA					

NO NAMA	PEKERJAAN	Alamat			
	LINEIUAAII	Kabupaten	Propinsi	Negara	KET
348 ANI TALLO					
349 HENDERIKA NDUN					
350 MARIA NDUN					
351 MARSELA FEOH					
352 MARLIN DOH 353 ARLIN BELLA					
					ļ
354 MARTA FIAH 355 MARIA FATTU			***************************************		
355 MARIA FATTU					
356 HALENA LUSI					
357 IDA APLUGI 358 SELFI FORA					
358 SELFI FORA					
359 MARGARITA NDUN			***************************************		
360 WASNI DULI					
361 LIA TULLE					
362 ESTER TULLE 363 RINA TULLE					
363 RINA TULLE					
364 ASRI FATTU 365 YOHANA RAJA					
366 OSA FATTU					
367 DONI YANI 368 DINA LOLEH					
					ļ
369 MENCI LOLEH 370 ETA LOLEH					
370 ETA LOLEH					
371 FILDA MBUY					
372 MERI ABE 373 SERLI YAMI					
374 YANE BELLA			***************************************		
375 HENI DOH 376 RIKA RAJA					
377 FRANSINA BABO					
378 CUBI ENGGE					
379 MARIA BULLA					
380 ESTER BUNGA 381 WELMINCE YOLA					
381 WELMINCE YOLA					
382 ADOLFINA YOLA 383 ATA FIAH					
383 ATA FIAH					
384 EDA BOLLA					
385 FINCE BOLLA					
386 MARTHA NDUN					
387 AMELIA BOLLA 388 SELFIANA LOASANA					
389 YAN FIAH			***************************************		
390 ARANCI APLUGI					
391 FERLIN FAMANI					L

NO	NAMA	PEKERJAAN	Alamat			
NO	INAIVIA	PENENJAAN	Kabupaten	Propinsi	Negara	KET
	ORPA NANA					
	RINI JOH					
	RIKA MBEA					
~~~~~	RUTH MBEA					
396	MARGARITA JOH					
397	NURYANI JOH					
	MONICA JOH			•		
	YETRI JOH					
	ATARA JOH					
	NONCI SEDEH					
	YANE FIAH					
	DELILA JOH			***************************************		
	WANDELMUT SEDEH					
	ENDANG NDUN		•			
	SELFIANA KEDOH					
	MARTINA KOTEN					
408	ATI NDOLU					
409	ORPA KOTEN					
	DORTIA ABE					
	SEMI KITU PENU					
~~~~~	YERI FOR A					
	ALFIANA FOR A			***************************************		
414	YASMI BAITANAS ANTONIA BELLA					
416	YULIANA LOASANA					
	ANCE LEDOH					
	YANTI FOR A			***************************************		
	IRA ABE		,			
	RITA NARA					
421	SELFIANA MBEA					
	MAGDALENA MUDA					
	ELISABETH BATU					
	RIDAN BABO					
	MONICA MBATU					
426	VONI ENGGE					
	NOLVI MUDA					
428	RIN BATU JULIANA BABO					

~~~~	INANG ENGGE					
	DORTIA ENGGE				ļ	ļ
	ERNI BATU					
	LUISA FATU					
434	ROEO GINA ENGGE					
435	MERIYATI LODOH					

NO	NAMA	PEKERJAAN	Alamat			
		LINEIUZZAN	Kabupaten	Propinsi	Negara	KET
	ORPA LAY					
437	MARGARITA ENGGE					
438	AGUSTINA LEDOH		·			
439	ERNA LEDOH					
440	SUSANA LEDOH TERPOSA LEDOH					
442	YENI LEDOH AGUSTINA LEDOH					
	PEBRI LEDOH					
445	SEPI LEDOH ENI GIRI					
	SILAS LEDOH					***************************************
448	FRANSINA LEDOH					
	MARIA LEDOH					
450	MARGARITA ABE DISAM BATU					
452	WEHELMINA BATU					
	LAHEROI LAMOH					
454	VICTORIA LODOH					
455	NAOMI LODOH DORKAS GIRI					
456	DORKAS GIRI					
457	LENA GIRI SIPORA BABO ANKA LODOH					
458	SIPORA BABO					
459	ANKA LODOH					
460	ANA LODOH MENCI DOH					
	ENI DOH					
463	YOSINA NALLE					
464	ICE NALLE					
465	LEA TUNGGA					
466	MAR TUNGGA					
467	ADMAJA BOLLA					
468	DOSILA KOLI					
469	EPIS KOLI					
470	ANA MUDA SUSANA BOLLA					
472	FINCE DAY					
473	YUCE DAY NAOMI GIRI					
474	NAOMI GIRI					
475	RIT KOLI					
476	RIT GIRI					
477	IDA LEDOH					
478	DINA FIAH					
479	BERTA LEDOH					

NO	NAMA	PEKERJAAN	Alamat			
NO	NAIVIA		Kabupaten	Propinsi	Negara	KET
480	IDA APLUGI					
481	RIKA LEDOH					
	MARTA SOPAN					
483	MAR LUDJI					
484	ROS KOTTEN					
485	AGUSTINA SINA					
486	SARLENCI SINA					
487	MUTH KOTTEN					
	JULIANA LAGI					
489	MARTHEN NDUN					

Catatan : Peserta juga ditambah Panitia dan Aparat Kecamatan serta Aparat Desa, Namun hanya mengikuti Pembukaan