



DADA
Zanzibar Women's Cooperatives

**THINK GLOBAL
BUY LOCAL**

**NATURAL
& HEALTHY
FOOD**

Zanzibar's Leading Food&Cosmetics Producers
QUALITY MADE IN ZANZIBAR

**FLOUR
POWER**

ZANZIBAR

DADA

Made in Zanzibar

ECOSMETICS

Hurumzi Str. 416

DADA

KOTO
HANDICRAFTS
Community based crafts production

DADA
Zanzibar Cooperatives Network

solarafrica.network

introducing:
AgroForestry project
MBUYU MABUNDI
FOOD FOREST
MMFF 2020

bi-annual report 2017
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DADA

MOTO

Who we are, our objectives, our projects

Antje Foerstle and Rainer Vierkoetter engage in local community projects, serve as assistance to local government institutions, from 1994, in the field of facilitation, implementation and empowerment of novel and sustainable initiatives to improve the social and economic aspects of the delicate nature, energy, climate and food scenario in Zanzibar.

Chumbe Island Marine Park, Unguja (1994-98)

assistant management, ranger training, under water nature trails.

Misali Island Marine Park, Pemba (1998-2000)

active role in setting up the marine park, surveys, research, ranger training and nature trails

Publications:

Marine Green Book Encyclopaedia of Zanzibar's Marine Life (1996)

Ukili The art of plaiting in Zanzibar (*in english and kiswahili*) (2006)

Moto Community Based Handicraft Network (2003 ongoing)

initiators, co-founders and supervision

Moto Workshop and Handicraft Museum, Pete (2003 ongoing)

initiators and advisers

Solarafrica.Network

solar cooker, solar drier, renewable energies (ongoing)

initiators, co-founders

Dada Cooperatives Network Food and Cosmetics (2008 ongoing)

initiators, founders and supervisors

Mbuyu Mabundi Food Forest, Sustainable Agroforestry, Education and Income Generating (2017 ongoing)

initiators, activists, educators and supervisors

All above projects have contributed to improve the social and economic aspects in Zanzibar. Under the premise of the protection of the natural environment the overall goal is to build food security and income by implementing sustainable agriculture and forestry practices, renewable energies and efficient consumption alternatives in Zanzibar.

All projects are affiliated to the Department of Forestry and Non-Renewable Resources, Ministry of Natural Resources, Zanzibar, Tanzania.

Vision 2017 to 2020

Generally, the main goals for the coming years is to support the current projects through:

- communication with and education of local communities
- introduction of methods of sustainable agriculture and silviculture
- continuous support of applications of renewable energy systems for households
- creation of income possibilities through the local production of environmentally friendly and socially acceptable products, food or craft
- continuous training, support and supervision of cooperative self-administration
- building local food security systems as well as raw material supply for crafts
- documenting and sharing relevant information with government institutions other projects.

Following the permaculture principles earth care, people care, fair share, main focus will be on developing environmental sustainable income generating activities incorporating the use of renewable energies in rural and peri-urban Zanzibar.

In this way, we hope to contribute to the government's main goal to eradicate poverty and build and strengthen local capacity within the agenda to mitigate climate change.

wise use of our resources for sustainable development in

ZANZIBAR

DADA

Zanzibar Cooperatives Network

Dada's Jam Session #2017

HOT MANGO **PAPAYA** **PINEAPPLE**
MANGO **BAOBAB** **LEMONGRASS**
BAHANA
TOMATO
ORANGE
GUAVA
TAMARIND
EMBE KIZUNGU
BITTER ORANGE
BUNGO

HI-FRUIT
LO-SUGAR

DADA & MOTO SHOP
ZANZIBAR STONE TOWN
HURUMZI STREET 416

QUALITY MADE IN ZANZIBAR

After long-term hands-on training and supervision by the Dada network, the cooperative Mama Matemwe has developed genuine products and established production routines for a tourism oriented clientele.

As a next step healthy and environmentally sustainable products for the middle class Zanzibar market are being developed.

New labels need to be created and the production routines of screenprinted or stamped labels trained and established. Products then have to be advertised on the local radio or TV channels for their health benefits and shall be distributed to selected supermarkets or can be ordered directly.

Five-Star artisan products for Five-Star customers

Over the years, the Dada network has helped Mama Matemwe to customize products for rooms and spas for a number of established hotels in Zanzibar such as Emerson Spice and Emerson on Hurumzi in Stone Town, or Matemwe Beach Village.

Recently, Dada has been approached by a number of high profile international companies such Park Hyatt, Four Seasons and Melia for non-edible community-made products such as massage oils, natural soaps and purifying bath salts.

Special concoctions have been customized and are used in Zanzibar and mainland operations advocating artisan products from the islands.

Dada production: COOPERATIVE MAMA MATEMWE AT WORK



visit the
DADA Shop
in Stone Town
Hurumzi 416

Zanzibar's 'Number One' Healthy Food & Cosmetics Producers

COOPERATIVE LEADERS TRAINING



DADA&MOTO SHOP MANAGERS MEET DADA PRODUCTION LEADERS



The cooperative Mama Matemwe consists of 46 members. Three elected leaders and one appointed trainer and logistician work under our supervision and learn how to direct a cooperative-owned enterprise.

The leaders' responsibilities include pre- and post-production and administration. This includes sourcing of raw materials and overseeing processing, storekeeping, accounting, cooperative relations, and customer sales and relations.

The leaders, logistician, and sales women of the project shop in Stone Town, Hurumzi 416 receive training either in seminars or through discussions on site about the natural products they are making or offering, the ingredients and their benefits so they can share the information with the cooperative members or customers.

The leaders and logistician visited all town-based customers to strengthen relationships and to understand more about habits and environment of the end consumer which should reflect in appropriate product development and production routines.

In order to understand and follow standards the leaders receive continuous input about scientific facts on production hygiene, management of human resources and administration.



RENEWABLE ENERGY DEMONSTRATION AT BAREFOOT COLLEGE

DADA

Wholesome Food and Natural Cosmetics

UJENZI

PEOPLE CARE FAIR SHARE
SUSTAINABLE ECONOMY



IMPROVEMENT BY REINVESTMENT

To improve the production process and to meet standards, **Dada network** suggested to the cooperative **Mama Matemwe** to reinvest profit earned through the sale of their produce.

During the decision-making-process plans were discussed, agreed on and, under supervision of the network finally realized.

Both roof and veranda of the main building were enlarged to provide for enough work space.

The old open air kitchen was moved into a kitchen banda with a new firewood saving stove. The storage banda's palm thatched roof was replaced by corrugated iron.

A new concrete slab in front of the cistern assures a clean washing-up workspace. The greywater is directed towards bananas and lemongrass.

A wooden structure was erected over the concreted space and passion vines planted to create shade in the future.

Corroded metal gutters were replaced and a new 5000 litre water tank connected. Together, new tank and old cistern can store 18,000 litres of water.

All work was done under guidance of Dada network with local fundi and collaboration and help of the cooperative wherever possible to reduce costs.

Still missing are more workrooms for detailed and precision work, and storage.

DOUBLE SIZE WORKSPACE - NEW ROOFS - RAINWATER CATCHMENT - PATHS



NEW KITCHEN FOR MAMA MATEMWE TWO PLATE CLAY STOVE

SUSTAINABLE PRODUCTION WITHIN THE **DADA** NETWORK

Energy efficient stoves should be implemented in all areas where fuelwood consumption as the main energy source has led to an unsustainable use of forests.

These stoves work on the principle of maximising energy consumption through air flow, disposition, materials and insulation.

Firewood saving stoves come in various models.

According to the type of stove they can use firewood, wood-shavings, saw dust, and pellets.



FUNDI IDDI ANAFANYA KAZI

APPROPRIATE TECHNOLOGY FOR SUSTAINABLE CONSUMPTION

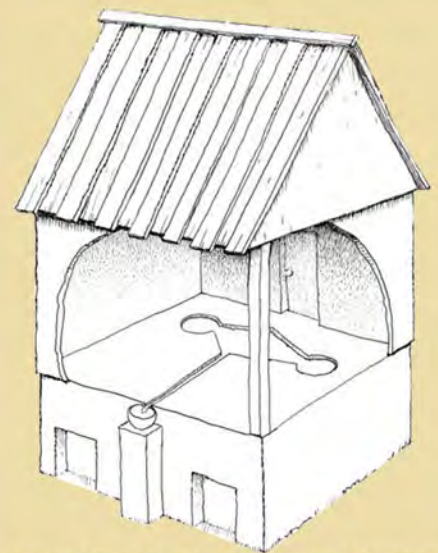


NEW COMPOSTING TOILET AT PRODUCTION SITE

The high temperatures during the composting period kill intestinal worm eggs and other pathogens, and after six months the manure is safe to be used as fertilizer for fruit trees or grains to increase crop yield.

Especially in the coral rag areas of Zanzibar, this system can save costs as no digging is required, and produces manure that can be used or sold. Harmful substances such as nitrates cannot reach the ground water table.

The technology of composting organic waste appropriately applied in other areas such as butcheries, markets or institutions can minimise greenhouse gases and can sequester carbon effectively as well as maximise profits for the users.



This toilet, known as the **Vietnamese Double Vault**, consists of two above ground water-tight tanks, or chambers, for the collection of humanure.

One tank is used until full and left to decompose while the other tank is in use. This design of composting toilet requires the segregation of urine, which is diverted to a separate receptacle through a groove on the floor of the toilet. Fecal material is collected in the tank and covered with soil or mulch, where it anaerobically decomposes. Kitchen ashes can be added to the fecal material for the purpose of reducing odor.



Sunlight is abundant, and low-cost locally built **solar dryers** can keep out postharvest pests or excess humidity to obtain high quality spices, grains, pulses, teas, and dried fruit.

Thermal solar cookers use the sun's rays and focus them on a black pot placed in the middle. They are especially convenient for the production of food or crafts with high energy inputs, such as the cooking of pulses or the dyeing of palm leaves.

By using the sun's renewable energy **less carbon** is emitted into the atmosphere and energy cost savings can be invested in other projects.



NO POWER CUTS FOR DADA

solar thermal cookers and solar dryers help reduce our carbon footprint

A PROBLEM ITSELF CAN BE A SOLUTION

COLLABORATION WITH ZANREC

WASTE FROM TOURISM SORTED, REUSED AND RECYCLED



Soil Building

After explaining to Zanrec about the training of the cooperative Mama Matemwe in regenerative farming methods, the Dada network received permission to collect composted material from the company's garbage sorting site in Matemwe.

As the composted material obtained was not sorted thoroughly and contained non-biodegradable waste, the women were trained how to sieve the compost and extract anything non-organic.

The non-biodegradable waste is used to fill the concrete foundation of a building.

The clean compost is used to fertilize bananas, aloe vera, chillies, ginger and papayas.

Glass Bottle Walls and Houses

The garbage removal company Zanrec has offered the donation of empty glass bottles for a pilot building project at the Kituo cha Jua where extra rooms for storage are needed.

Instead of conventional bricks a piloting glass wall is being planned. The bottles are to be joined with conventional mortar to make a strong structure that allows some light to penetrate.

If bottle building proves to be economically viable it might serve as an excellent example of alternative building technology reusing precious natural resources.

glass bottle houses, glass bottle walls worldwide



REUSE REDUCE RECYCLE REFUSE

MAMA MATEMWE FOOD SECURITY AND SUSTAINABILITY THROUGH AGROFORESTRY



The Dada production site is now fenced with barbed wire to keep out free-roaming livestock that formerly damaged moringa trees and other plants to the point that the cooperative wanted to unsustainably farm yams and maize only. However, the plantation around the production site is assigned for crops focussing on perennials to be used in the production, such as moringa, aloe vera, banana, papaya, ginger, turmeric, passion, chilli. To improve the poor soil runner beans and indigenous legumes cover the grounds while pigeon peas additionally provide some shade.

A drought resistant perennial green, the *chaya*, unknown to the women, was planted. It supplies leaves similar to cassava or sweet potato, but throughout the year with little effort. Tamarind and baobab are on site already.

The area is not large enough to provide for all needs, but as a piloting plot it exposes all women to an environmentally sound and more sustainable way of cultivation with the objective of overcoming unsustainable practices such as slash and burn techniques that have degraded Matemwe land in the past years.

A small nursery is being established comprising mainly of fruit trees. The women have learned to use the seeds from fruit processed on site rather than rendering them invaluable. The nursery in future is supposed to provide for more trees on site, for the women's home gardens or shamba, and excess for sale to the farming or hotel community.

All projects and parts thereof have been part of development within the permaculture principles meaning they don't aim for immediate singular profit, but they build up a system that will give a diverse yield for a long period of time. Initially, energy and input is needed, but once the system has been established, it will be more and more productive over the years.

NEW PROJECT: MMFF MBUYU MABUNDI FOOD FOREST

A memorandum signed by the communities allows the natural coral rag thicket to regenerate.

The communities agreed to refrain from keeping livestock, cutting or collecting firewood or farming without prior approval.

The regrowth of the indigenous forest sequesters carbon at the highest rate and has a positive influence on the local climate.

The regrowing forest provides habitat for wildlife and secures endemic and indigenous plants that can be used as seed for other areas to be restored. It also offers many opportunities for income generating and educational activities, for medicinal use and for recreation.

GREEN OPPORTUNITIES IN MATEMWE

The garden around the Dada production site, the **KITUO CHA JUA**, is assigned for crops focusing on perennials to be used in the food and cosmetic production, such as moringa, aloe vera, banana, papaya, ginger, turmeric, passion, chilli. To improve the poor soil runner beans and indigenous legumes cover the grounds.

Instead of water-needing soft greens, a drought resistant perennial bush, the **chaya**, has been planted. It supplies leaves similar to cassava or sweet potato, but throughout the year with little effort. Tamarind and baobab are on site already.

An **EDUCATION AND VISITORS' CENTRE** planned at the entrance to the forest shall provide appropriate space to share information about the various community and land restoration projects and shall offer **vocational training** to the members of the local community as well as **seminars** and **workshops** for the interested general public.

It shall be built in a sustainable way using recycled or natural materials and be powered by renewable energies.

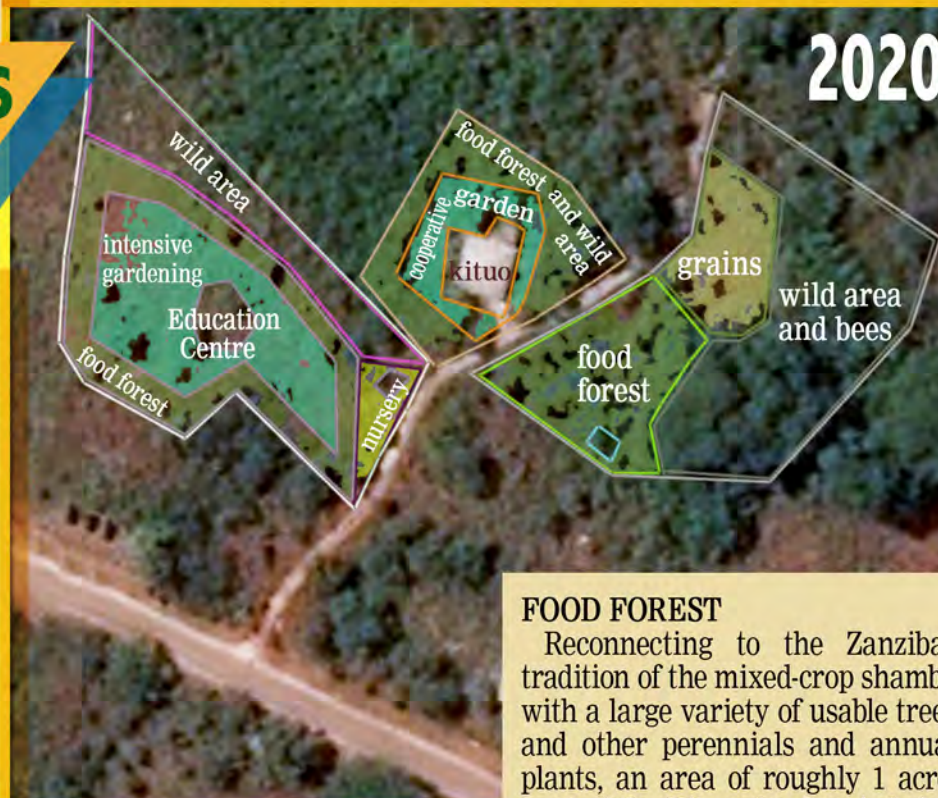


2007



2016

FROM NO TREE TO FOREST TO AGROFOREST



2020

FOOD FOREST

Reconnecting to the Zanzibar tradition of the mixed-crop shamba with a large variety of usable trees and other perennials and annual plants, an area of roughly 1 acre, west of the Kituo cha Jua, is being planned as **pilot shamba**.

An **AgroForest Trail** is planned where interested people from the community, but also outside visitors can witness the transformation from unproductive land to abundant yield.

Science-based AgroForestry combined with appropriate traditional practices shall help to guide the community into taking up sustainable approaches to using their natural environment and the locally available resources in the best possible way.

**COLLABORATION WITH MATEMWE
SECONDARY SCHOOL, FTD AND PPIZ**

CERTIFIED PRACTICAL PERMACULTURE COURSES



Practical Permaculture Institute Zanzibar PPIZ

Since the establishment of the PPIZ in Shakani, an exchange program has been established.

As part of the aim to educate the cooperative and Matemwe communities about regenerative agriculture, so far eleven candidates have been identified and finished a two-week practical permaculture introduction course, with certificate.

Sponsoring was sourced from PPIZ and private donors.

Furthermore students of Permaculture Design Certificate courses visit the Dada production site at the Kituo cha Jua on a regular basis to learn about their work of creating an income based on non-damaging activities.

Fumba Town Development FTD

Searching for alternative products based on permaculture principles, the FTD have commissioned Dada to develop environmentally sound cleaning agents.

A slightly abrasive soap and soothing handbalm for gardeners and workers have been customized for the company.

In future, soap berry based liquid cleaning agents hope to be developed for use on the FTD premises and to make them available at the towns' supermarkets. (Soapnut does not change PH level and hence greywater does not harm soil life.)

Matemwe Mlimani Secondary School

is part of the ecoschool program of the Western Indian Ocean island states.

A continuous cooperation is being established as to assist in the introduction of agroforestry on school grounds.

To enable the implementation of regenerative measures to combat climate change at the school, a permaculture course was suggested and sponsoring sourced.

Both head teacher and environmental club and science teacher have now undergone permaculture training in PPIZ.

As the school has not been completed (football grounds, dormitories, mosque, gardens) this provides a genuine opportunity to timely integrate regenerative agriculture and agroforestry, and the use of renewables.

**PPIZ STUDENTS
VISIT DADA AS
PART OF THEIR
FIELD STUDY**



PRACTICAL PERMACULTURE FOR PRIMARY KIWENGWA SCHOOL - KINS

Kiwengwa Nursery and Primary School is a small school running on share economy, that means that by enrolling paying children a number of students whose families cannot afford tuition fees are being sponsored. This makes the little school a unique social project, but full of challenges mainly economically.

One approach of making the school financially sustainable and boosting education standards at the same time is to make a school garden where parents can work, children can learn and the produce can be sold to finance projects within the school such as structures or equipment.

Children of ages 5 to 10 received an introduction to the biology and care of plants and trees, and to the soil organism community.

BEE KEEPING COLLABORATION WITH BAREFOOT COLLEGE & PPIZ



Two women of the **Mama Matemwe** cooperative participated in a 2-week workshop at **Barefoot College**, Kibokwa. They learned about the principles of beekeeping from various teachers, including the Bee Keeping Association from Kitogani.

Other members of the cooperative received an introduction to beekeeping during the course taken at PPIZ, Shakani.

Two beehives were purchased and put up near the Kituo cha Jua. Twice bees could be caught, but in both occasions they were ambushed by wax moths before the swarm could grow enough to defend themselves.

For the interested members of the cooperative Dada network is following up by giving access to educational movies and bringing consultants.



DADA

Zanzibar Cooperatives Network

ZANZIBAR COOKING-CULTURAL EXPERIENCES
**COME AND COOK
WITH
MAMA MATEMWE**



Intercultural Interaction Come and Cook Together!

On production days, the Dada cooperative Mama Matemwe invites visitors to join the cooperative and get active!

Visitors are shown to cook a healthy traditional Zanzibar sauce based on tomato, cassava leaves and freshly grated coconut, or prepare baobab fruits growing on magnificent trees on the Matemwe ridge and turn them into delicious and healthy baobab jam or chutney.

After cooking and packaging visitors can take home their own Dada products.

Cooking together offers a unique opportunity for foreign visitors to appreciate the cooking culture of Matemwe communities hands-on.

Our expert women readily share their skills mostly unknown or forgotten by the majority of urban residents.

The women show guests how to fetch water in buckets, cook on wood fires, use the wooden mortar to powder grains, seeds or spices, quick-dry ingredients on palm woven mats, and in this way help visitors to reflect on their own kitchen environments and consumptive habits.



Cooking together can be an exceptional learning experience for both foreign visitors and Matemwe women: it nurtures respect and open-mindedness for each other and caters for a universal human need - food.



HANDICRAFTS

Community based crafts production

FROM VISION TO REALITY: INCOME BASED ON RENEWABLE RESOURCES

Moto Handicraft

The non-for profit Moto project (since 2003) is today an independent and self-reliant cooperative to increase the value and income through culturally and environmentally sensible handmade items from biodegradable and renewable sources such as wild date palm (ukundu) and Tanzanian cotton. The main focus is on communities around the Jozani forests.

Moto runs a museum and workshop in Pete.

The project has continuously worked on providing opportunities for sustainable income generating in order to address the unsustainable use of the forests' resources.

The Dada/Moto shop in Hurumzi 416 as an outlet for the quality community products made by cooperatives is now well-established and appears in a number of guide books about Zanzibar.

Originally, when training the artisans in various communities, thermal solar cookers were used in the lengthy boiling of high quality palm leaf material.

Nowadays, a sample parabolic solar cooker is displayed at the shop entrance.

Moto project has led to a registered cooperative, and apart from training artisans and marketing their craft, the promotion of the use of the sun's free energy has successfully branched into a viable business, Moto Solar Power.

Moto Solar Power

Emerging out of the above set-up, the for-profit Moto Solar Power is run successfully by the Moto cooperative. Members were given access to training through an ongoing volunteers' program and through participation of seminars in Germany. Now Moto is providing affordable solar power systems for small and large households, urban or rural. Affordability is made possible through the grants of micro-loans.



Ukili

Plaiting in
Zanzibar

the products
the patterns
the people

A book by
Antje Förstle

(in english and
kiswahili)



"Apparently, there is very little reference to this craft, and the realisation of this book is the testimony to the wealth of skills among the women of Zanzibar.

Undoubtedly, the book shall provide a good reference to some of the superb plaiting patterns, which otherwise were considered non-existing in the coastal areas of Tanzania.

Over the last five years I have witnessed the improvement of ukili products and designs to which the author of this book, Antje Förstle, has put personal initiatives.

I would like to take this opportunity to express my gratitude to her.

Now that the finest ukili patterns of the Tanzanian coast have been documented, let's make the best use of it! "

DR. BAKARI S. ASSEID

former Director – Department of
Commercial Crops, Fruits and Forestry,
Zanzibar

(quote: Ukili, foreword - 2006)



"MOTO has reaffirmed how the Wild Date Palm (*Phoenix reclinata*) can best be used to produce an environmentally friendly craft, the ukili."



MIKINDU A HANDICRAFT CASHCROP



ZANZIBAR EXPERIENCE MOTO HANDICRAFT CRAFTS & CULTURE

MUSEUM & WORKSHOP



moto

Karibu, be our guest,
and experience local craft culture at the
MOTO Workshop&Museum.

The Museum offers a unique collection of palm plaited items from the entire Swahili coast, attractively presented in a village setting. Their individual importance and use is explained to you by knowledgeable guides, along the daily routine of Salama, a Zanzibari woman.

The fascinating production process of ukili - from the date palm's frond to the colourful basket - is described in text and object and can afterwards be experienced by you hand in hand with local craftswomen in a 30min workshop.

Members of craft cooperatives take turns in showing you how handselected leaves of the wild date palm go through a timely transition and evolve into fashionable accessories or classic, contemporary pieces for the home.

In our workshop experience the making of the famous Swahili loin cloth, the kikoi - handwoven on wooden looms. Worn all along the East African coast, this traditional piece of clothing is as popular as ever. Additionally, the kikoi has been discovered as material for comfortable men's and ladies' wear and adorns the world traveller's home in form of beautiful drapes, curtains, table wear or bedsheets.

Supervised and supported by an experienced artisan you may design and batik a t-shirt or table cloth with Zanzibar or Tanzanian motives. Plain t-shirts and fabrics purchasable

Spend 3 hrs at our Museum&Workshop and experience the hospitality of local craftspeople in the village of Pete. A delicious traditional Swahili lunch is included. Situated only 3km from Jozani Nationalpark, our tour is a perfect supplement to your visit to the famous Zanzibar Colobus Monkeys.

MOTO Museum&Workshop in Pete, Zanzibar.
Min. 2 pax. Families, groups, school classes are welcome.
Please book in advance with your tour operator,
or directly with Moto: phone 0773 031 178
video and info: www.gomotozanzibar.wordpress.com
e-mail: moto@madeinzanzibar.com

**ZANZIBAR
EXPERIENCE
CRAFTS &
CULTURE**



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