

# The introduction of draft donkey in Burkina Faso, West Africa

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## Abstract

By harnessing donkeys with self-made collars in 1959, Antoine Mailliet, a young farmer of Luxembourg, succeeded in changing the pack donkeys living in Burkina Faso (Upper Volta at that time) to draft animals. From 1959 to 1969, ten Luxembourgish volunteers together with state and clerical actors continued promoting the draft donkey.

Since 2003, the NGO *Luxembourg Young Farmers* started pairing the draft donkey with the multipurpose agricultural tool "kassine", designed by PROMMATA, France. In 2008, a training center was constructed in Imasgo, Boulkiemdé, where about 1,300 farmers learnt to use this new pairing and modern agricultural techniques in order to increase harvest yields.

In 2016, to promote the draft donkey on a larger scale, four local training facilities have been built in four villages belonging to different regions: Imasgo (Boulkiemdé), Tiogo (Sanguié), Sabouna (Yatenga) and Koalma (Sanmatenga). Four trainer teams, of five members each, have been teaching draft donkey usage to nearly 11,000 farmers. Through this, about 55,000 villagers benefited from increased food security.

Additionally, the training teams promote the creation of farmers' cooperatives to provide access to agricultural inputs and material as well as the building of management capacities.

The usage of draft animals is essential in light of the climate change; it is not only adapted to small scale farms, allowing to increase yield during extended draught seasons, but also an ecological way of tilling degraded soil to recover it. It contributes to reduce poverty for sub-Saharan rural families.

## Kurzfassung

Indem Antoine Mailliet, ein Luxemburger Landwirt, 1959 Esel mit einem selbstgemachten Kummet anspannte, wurden Zugtiere aus den in Burkina Faso (damals Ober-Volta) lebenden Packeseln. Von 1959 bis 1969 setzten sich zehn luxemburgische Freiwillige zusammen mit staatlichen und kirchlichen Akteuren für den Gebrauch des Eselsgespanns ein.

Seit 2003 fördert die ONG „Lëtzebuenger Landjugend a Jongbaueren – Service Coopération a.s.b.l.“ den Einsatz des Eselsgespanns mit dem von PROMMATA, Frankreich, entwickelten Mehrzweckgeräts „Kassin“. Im Jahre 2008, wurde ein Ausbildungszentrum in Imasgo (Boulkiemdé) errichtet, wo 1.300 Landwirt:innen lernten, wie sie durch den Einsatz des Duos Esel/Kassin und moderner Arbeitsmethoden bei der Bewirtschaftung der Felder ihre Produktionskapazitäten steigern konnten.

Um das Eselsgespann in einem größeren Umfang zu fördern, wurden 2016 in verschiedenen Regionen vier lokale Trainingseinrichtungen in vier Dörfern gebaut: Imasgo (Boulkiemdé), Tiogo (Sanguié), Sabouna (Yatenga) und Koalma (Sanmatenga). Vier Trainerteams mit jeweils fünf Mitgliedern führten etwa 11.000 Produzenten in den Gebrauch des Eselsgespanns ein. Dadurch profitierten 55.000 Dorfbewohner von einer erhöhten Ernährungssicherheit.

Die lokalen Ausbildungsteams förderten die Gründung von Bauernvereinigungen, um den Zugang zu landwirtschaftlichen Betriebsmitteln und Materialien zu erleichtern, sowie die Schaffung von Verwaltungskapazitäten für Familienbetriebe.

Im Hinblick auf den Klimawandel hat der Einsatz von Zugtieren eine große Bedeutung. Er ist nicht nur für Familienbetriebe geeignet, die in längeren Dürreperioden ihren Ertrag steigern können, aber er ermöglicht auch eine ökologische Bodenbearbeitung, um degradierte Böden wieder fruchtbar zu machen. Er trägt dazu bei, die Armut von Familien in ländlichen Gebieten südlich der Sahara zu verringern.

## Résumé

En attelant des ânes avec des colliers simples, Antoine Mailliet, un jeune agriculteur luxembourgeois, réussissait en 1959 à transformer les ânes de bât du Burkina Faso (ancienne Haute-Volta) en animaux de trait. Entre 1959 et 1969, dix volontaires luxembourgeois, appuyés par des acteurs étatiques et religieux, continuèrent à promouvoir la traction asine.

Depuis 2003, l'ONG « *Lëtzebuenger Landjugend a Jongbaueren – Service Coopération a.s.b.l.* » fait la promotion de la traction asine et du porte-outil polyvalent « kassine », conçu par PROMMATA, France. En 2008, un centre de formation fut construit à Imasgo, Boulkiemdé, où environ 1 300 producteurs apprennent comment obtenir de meilleures récoltes en utilisant le duo âne-kassine et les méthodes agricoles modernes.

En 2016, quatre maisons relais furent construites dans quatre villages de régions différentes : Imasgo (Boulkiemdé), Tiogo (Sanguié), Sabouna (Yatenga), Koalma (Sanmatenga). Vingt formateurs enseignèrent les techniques de production en traction animale à presque 11 000 producteurs. Environ 55 000 villageois renforcèrent ainsi leur sécurité alimentaire.

Les équipes d'encadrement encouragèrent également la création de coopératives paysannes pour accéder aux intrants et matériels agricoles et considèrent les capacités de gestion des producteurs.

L'utilisation d'animaux de trait est essentielle face au changement climatique ; la traction animale est adaptée aux petites exploitations, permet d'augmenter les rendements durant les périodes de sécheresse prolongées et constitue un moyen écologique de labour et de récupération des sols dégradés. Elle contribue à réduire la pauvreté des familles rurales en zone subsaharienne.

## Resumen

En 1959, Antoine Mailliet, un joven agricultor luxemburgués, consiguió adiestrar a los burros de carga que vivían en Burkina Faso (el Alto Volta en aquella época) para poder ser utilizados como animales de tiro. De 1959 a 1969, diez voluntarios luxemburgueses, junto con actores estatales y clericales, siguieron promoviendo el burro de tiro.

Desde 2003, la ONG Jóvenes Agricultores de Luxemburgo comenzó a emparejar el burro de tiro con la herramienta agrícola polivalente "kassine", diseñada por PROMMATA, Francia. En 2008, se construyó un centro de formación en Imasgo, Boulkiemdé, donde unos 1.300 agricultores aprendieron a utilizar esta nueva formación y otras técnicas agrícolas modernas para aumentar el rendimiento de las cosechas.

En 2016, para promover el burro de tiro a mayor escala, se construyeron cuatro centros de formación locales en cuatro pueblos pertenecientes a diferentes regiones: Imasgo (Boulkiemdé), Tiogo (Sanguié), Sabouna (Yatenga) y Koalma (Sanmatenga). Cuatro equipos de formadores de cinco miembros cada uno han enseñado el uso del burro de tiro a casi 11.000 agricultores. Gracias a ello, alrededor de 55.000 personas se han beneficiado de una mayor seguridad alimentaria.

Además, los equipos de formación promueven la creación de cooperativas de agricultores para acceder a insumos y materiales agrícolas, así como la creación de capacidades de gestión.

El uso de animales de tiro es esencial a la luz del cambio climático; no sólo se adapta a las explotaciones de pequeña escala, permitiendo aumentar el rendimiento durante las prolongadas temporadas de sequía, sino que también es una forma ecológica de labrar el suelo degradado para recuperarlo. Por último y no menos importante, el uso de animales de tiro contribuye a reducir el nivel de pobreza en familias de las zonas rurales del África subsahariana.



Burkina Faso, formerly called Upper Volta, is located in the West African Sahel zone. The country has no access to the sea. The borders are in the north and west Mali, in the south the Ivory Coast, Ghana, Togo and Benin, in the north-east Niger. The former French colony gained its independence in 1960. The name Burkina Faso was adopted in 1984 and means “The Land of the Incorruptible People”. The capital Ouagadougou is 500 miles (about 800 km) from the Atlantic Ocean and is the center of the country<sup>1</sup>.



Figure 1 – Map of West Africa



Figure 2 – Map of Burkina Faso

In the 50s the rain came very irregularly, and it rained a lot less than usual. One famine followed another, and many people died of starvation.

The farmers’ traditional methods were not efficient to have enough to feed the families. Indeed, the farm-

ers tilled their fields with the “daba”, a short-handled hoe, they did not sow in lines and did not add any compost. The crops were not always sufficient for the family to survive.



Figure 3 – Before 1959, the soil was tilled with a small hoe, called ‘daba’



Figure 4 – Three types of the “daba” hoe

The civil as well as the religious leaders tried to find solutions to this evil.

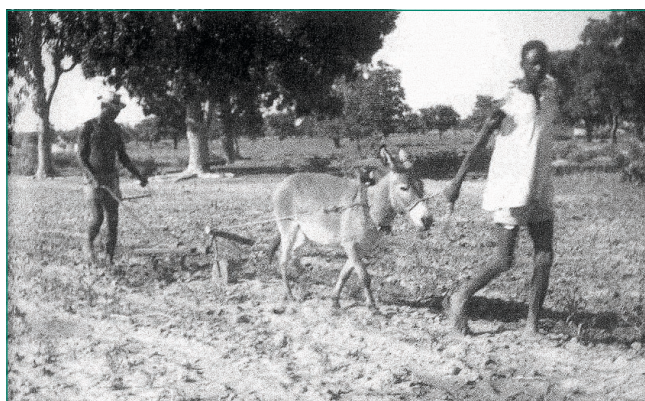
Monsignor Joseph Bretault, Bishop of Koudougou, asked Antoine Mailliet, a young Luxembourgish farmer, to come to his diocese to possibly find a solution to the problem of malnutrition in the population. Antoine Mailliet eventually succeeded. He harnessed donkeys with self-made collars. In this way, the donkey that usually transported big pieces of salt on its back from the Sahara to the South, became a draft animal.

1 Map, URL: <http://www.transafrika.org/pages/laenderinfo-afrika/burkina-faso/geographie.php> [09-02-2022].





**Figure 5** – The smith of Lumbila (BF) still produced Antoine Mailliet's donkey collar in 2003



**Figure 6** – 1960, two farmers in formation at Imasgo demonstrate how to plow with a donkey harnessed with a collar

Many old men were opposed to the innovation and did not want to change their traditional methods. The catechists and the technical agents of the Ministry of Agriculture as well as the ten Luxembourgish volunteers who worked from 1959 to 1969 with the financial and moral support of the Young Catholic Farmers and Winegrowers of Luxembourg under the leadership of Reverend Henry Spoden S. J., continued the promotion of the draft donkey. From 1963 to 1969, the organization “Secours

Catholique”, France (French Catholic Help) supported the project financially too<sup>2</sup>.

Antoine Mailliet was stationed in Imasgo, where the National School for Catechists was established. He formed the catechists in draft donkey labor and the new agricultural methods. When the trained catechists were sent to different parts of the country, Monsignor Joseph Bretault provided them with a pair of donkeys with the necessary harness, a plow, and a donkey cart. The recipients had to pay back the cost of the equipment in three to five years. This was possible because the catechists harvested so much in their fields that they could sell part of the crops. In addition to their missionary work, they showed the local population the new farming methods with which they could fight the famine<sup>3</sup>.

By becoming a draft animal, the donkey revolutionized the agricultural methods. The farmers ploughed their fields, sowed in lines, added compost to their fields and eliminated the weeds with a rake drawn by a donkey. The farmers' lives became easier, the crops grew, and the population had more to eat.

After 1959, the donkey, as a draft animal, became particularly important in transportation. As a donkey may easily pull a cart with 400 liters of water, the women and girls are relieved from bringing home the water on their heads. The harvests as well as all kind of material can be transported with the donkey carts – the everyday life of the people became easier<sup>4</sup>.



**Figure 7** – The draft donkey became an important help in transportation

The donkey is strong, undemanding and perfectly adapted to West Africa's climate. As the purchase cost is not too high, most families can own one or two donkeys.

The donkey collar made with the wood of the region and the materials available on site, can easily be produced by the blacksmiths of the village.

The “Manga Hoe”, a multipurpose agricultural tool, invented by a missionary and a smith in the village of Manga, made many processes possible by using only one tool on which the implements could be changed.

2 Coopération au développement agricole en Haute-Volta.

3 Mailliet/Scheidweiler 1999.

4 Lëtzebuurger Jongbaueren a Jongwënzer – Service Coopération a.s.b.l 2010.





At the instigation of Mr. Jean Feyder, Director for Development Cooperation in the Luxembourg Foreign Ministry, an impact study was carried out in Burkina Faso in 2003.

- ‘It was intended to give the public an insight into the socio-economic connections and effects of draft donkey in Burkina Faso, which was largely initiated by young Luxembourgish development workers. In addition to its summary results, the study concludes that the development aid that was applied 40 years ago (from 1959-2003) is still bearing its economic and social fruits today<sup>5</sup>.

The following advantages of the donkey as a draft animal are particularly appreciated by the farmers:

- Ease of work
- Increases in income
- Expansion of the cultivation area
- Time savings in the cultivation work
- Sources of income through new services for third parties, e.g., transport and agricultural work<sup>6</sup>

Although many farmers considered the donkey as their “first son”, they put an old tire around the donkey’s neck, instead of using a collar to harness the animal. Often, they did not feed it properly and did not treat the animal well.

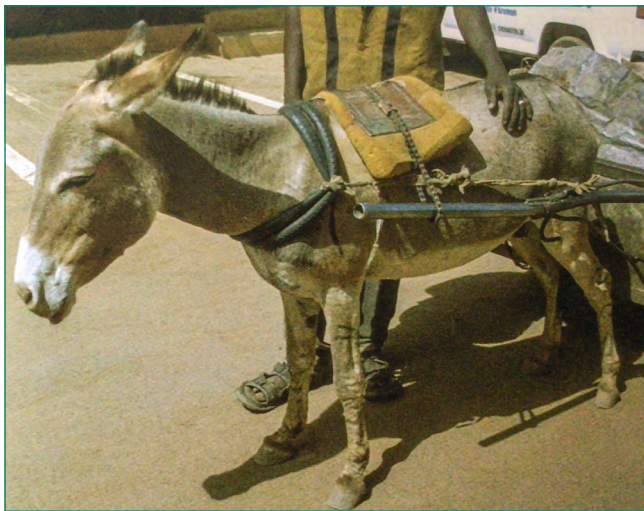


Figure 8 – A donkey harnessed with an old tire

To redress this deplorable situation, the young farmers in cooperation of the Ministry of Development of Luxembourg built a training center in Imasgo. From 2008 to 2016, over 1300 farmers learnt to work with the animal and how to treat it correctly. The kassine, a new modern multipurpose agricultural tool, was introduced and promoted at the same time<sup>7</sup>.

5 Feyder 2020.

6 Lëtzebuurger Jongbaueren a Jongwënzer Service Tiers-Monde a.s.b.l. 2004.

7 Id. 2016.



Figures 9-10 – Toilets and showers for farmers in formation / Stable for 20 donkeys

Prommata was created in Ariège, France, in 1991, at the initiative of Jean Nolle (1918-1993) and a few farmers. Heirs to Jean Nolle’s philosophy of versatility, Prommata designed the kassine in 1994, one year after the death of its honorary president and founding father<sup>8</sup>.

Different accessories may be attached on the kassine without many difficulties.

- The farmer pulls a lever up to take the tool out
- Another tool is inserted into the frame of the kassine
- The lever is set down
- The tool is kept in the frame by the draft force
- There is no need to loosen a screw



Figure 11 – Process of changing a tool: Pull the lever up

8 Jo Ballade 2021, oral statement.





Figure 12 – Take out the tool



Figure 13 – Insert another tool, set down the lever



Figure 14 – The tool is kept in the frame by the draft force as shown by the demonstrator

To promote the draft donkey on a larger scale, four local training facilities have been built in four villages belonging to different regions: Imasgo (Boulkiemd ), Tiogo (Sanguie), Sabouna (Yatenga) and Koalma (Sanmatenga). Four trainer teams of five members each are teaching draft donkey usage to nearly 11000 farmers in these areas counting 28 villages with a population of about 82000 inhabitants. The project began in 2018 and was closed in 2021. At the end of the project, about 55000 villagers benefited directly or indirectly from this project<sup>9</sup>.

The kassine is excellent to prepare a field with the “zai” method. The “zai” consists in cutting the hard soil with a sort of knife attached to the kassine before the beginning of the rain season. The farmer draws a square pattern of lines on his ground. At the intersection point of two lines, they dig a hole wherein they put the seeds and the compost.



9 Monville 2018.







**Figures 15-16** – Mechanized “zai” on a demonstration plot in Gompansom (Passoré)

To prepare a hectare without any draft animal, ten persons work for 300 hours to have the job done. With a kassine drawn by a couple of donkeys and two persons to lead them, the hard craft is finished within 40 hours.

The “zai” method has the advantage that the water is recuperated and kept for a long time in the hollow dug by the farmer at the intersection of two lines. In this way, the plant has a better chance to survive and to grow, even if there is a lack of rain for a certain time<sup>10</sup>.

The kassine is used with much benefit in transforming the so-called “zippélés” (areas of infertile soil) into fertile agricultural land by treating the soil with the “zai” method.



**Figure 17** – Demonstration plot in an infertile area showing the best effects of the use of the kassine and the “zai” method

Furthermore, to stabilize the soil and to retain as much as possible of the rainwater, which is not so abundant, the farmers pile up stones in long lines that form terraces like small dams, called in French “diguettes” or “cordons pierreux”.

10 Id. 2020.



**Figure 18** – Piled up stones form small dams to retain the rainwater – the picture was shot nearby Sabouna (Yatenga)

Due to the high prices of the kassine and its accessories, the material is not accessible to everyone. Therefore, the creation of farmers’ cooperatives to access to agricultural inputs and material as well as the building of management capacities are essential. They are promoted by the training teams of the local training facilities.

The four training teams in the four training centers promote the idea of the usage of draft donkeys, the multiple use of the kassine and of compost, the method of “zai”, in setting up demonstration plots, in commenting the results and in broadcasting the efficient methods. They point out the donkey’s behavior, its specifications, its needs, its food, and hygiene. They teach the correct treatment and education of the donkey, so that it becomes a reliable work companion. It is important to have the correct harness for the animal to do its work without being wounded by an inadequate gear. Furthermore, the teams introduce and train the farmers to act in cooperatives<sup>11</sup>.

We are convinced that all these methods help fighting the famines and are guaranteeing a far better life to the farmers and to their families than in former times. The usage of draft animals has a future because it is an ecological way of tilling the soil, it is adapted to small-scale farms, and it gives best results<sup>12</sup>.

11 Id. 2021.

12 Lhoste et al. 2011-2021.



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