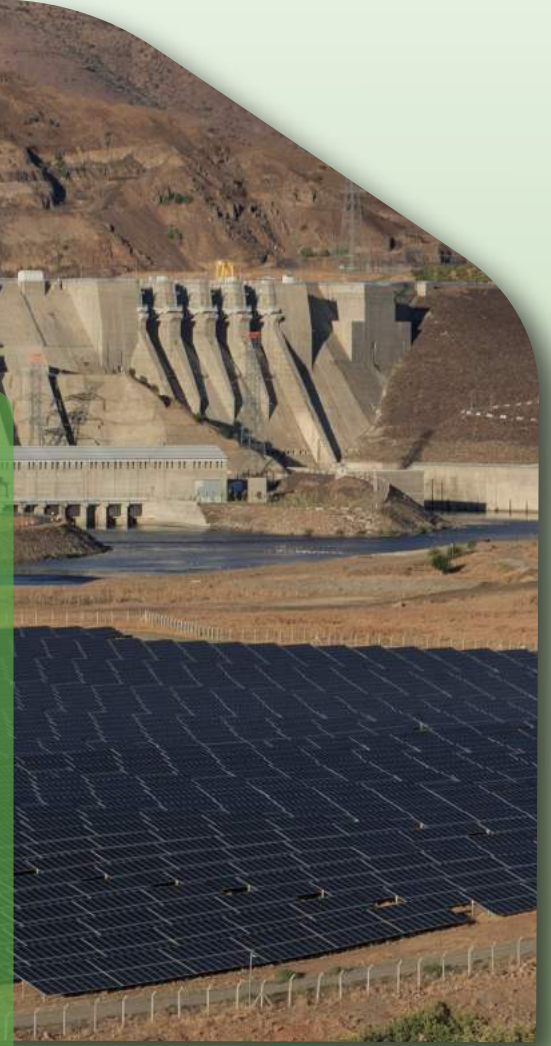


IsDB Success Story and Climate Action



SENEGAL



SENEGAL

Speeding into the Future | West Africa First Regional Fast Train

Senegal's capital Dakar has been challenged by growing urbanisation, created by increasing economic opportunities.

The city of three million people offers nearly 85 percent of nationwide jobs, prompting an influx of around 100,000 new residents from rural communities each year.

The lack of adequate transportation options places substantial pressure on the country's immature road transportation and networks, resulting in heavy traffic congestion.

To improve the facilitation of populations transiting to the capital Dakar daily, the Islamic development bank has committed US\$337 million to the construction of West Africa's first fast train railway network.



“The Dakar - AIBD regional express train project is a solution to the mobility problem that has arisen in Dakar over the past decade.”

Meme Fall,
Head of Railway Systems and Rolling Stock Engineer

Modern transportation infrastructure expands a country's economic growth by reinforcing national cohesion and regional integration.

It can also help tackle climate change and is therefore central to every country's sustainable development. Senegal's Dakar to Blaise Diagne International Airport (AIBD) regional express train project is one of the flagship projects of the Emerging Senegal Plan (PSE) initiated by the President of the Republic, His Excellency Mr Macky Sall and is helping to redefine transportation standards in the region.

Head of railway systems and rolling stock engineer, Meme Fall says "The Dakar - AIBD regional express train project is a solution to the mobility problem that has arisen in Dakar over the past decade.

" Phase one of the 57 kilometres project travels 36 kilometres from the capitol Dakar to the town of Diamniadio and began operation in December 2021.



Senegal Region Fast Train (TER):

IsDB Contribution:

US\$337 Million

Total Distance:

57 kilometres

From Dakar to Blaise Diagne
International Airport (AIBD)

Phase 01: **36 klm / 13 stops**

Phase 02: **19 klm / 1 stop**





It passes 13 stations according to Fall, “the first phase goes from Dakar station via Colobane, Hann, Dalifort, Beaux-Maraîchers, Pikine, Thiaroye, Yeumbeul, Rufisque, PNR; Bargny, and then Diamniadio station.

This route now facilitate the easy transportation of residents in these communities to the city says Bargny resident and TER passenger Abdul Hessam. “I see more people interested in spending their day outside the city. Before it wasn’t possible, but now you can live in Bargny, in Rufisque, come to work (in the city), and return home so it is an economic win,

” This is transforming urban populations and increasing economic productivity in rural areas as well.

“We are talking about a transport system that has completely changed the localities that they cross,” says Fall. “People are finally coming to live along the corridor, which makes the local economies much more attractive.”



“*We are talking about a transport system that has completely changed the localities that they cross,” says Fall. “People are finally coming to live along the corridor, which makes the local economies much more attractive.*”

Meme Fall,
Head of Railway Systems and Rolling Stock Engineer

The second phase of Senegal's regional express train is expected to be complete in 2026 and will transport passengers 19-kilometer from Diamniado to the newly constructed AIBD airport.

These eco-friendly, hybrid fast trains operate on both electricity and diesel, helping the environment by allowing passenger traffic to switch from congested roads to a more sustainable transport option.

"There is less pollution," confirms Fall, "less release of CO2 gas into the atmosphere.

" According to Fall, each train can transport 500 people, the equivalent of 10 buses and since there are 196 journeys per day, the TER has the potential of eliminating the pollution of 1900 buses daily and decreasing CO2 emissions by an estimated 17,000 tons per year.

This mass transport system that meets international standards in terms of urban mobility consists of 15 trains can reach a maximum speed of 160 km/hour, reducing the travel time between Dakar and the airport from 90 minutes to just 30 minutes, saving passengers time and money says passenger Amadou Thiam.

13 TER Stations:

- ◆ Dakar
- ◆ Colobane
- ◆ Hann
- ◆ Dalifort
- ◆ Beaux-Maraîchers
- ◆ Pikine
- ◆ Thiaroye
- ◆ Yeumbeul
- ◆ Rufisque
- ◆ PNR
- ◆ Bargny
- ◆ Diamniadio
- ◆ Blaise Diagne International Airport (AIBD)





“It is very useful for us. It makes our life easier and helps us save time. With traffic jams it is not easy to arrive anywhere on time, but with the train it is good. We arrive on time, do what we need to and then leave on time, which helps us work better and be more productive.

” The first phase of this regional express train line sees upwards of 115,000 passengers a day, but once the second phase is complete, that number is expected to double.

“There are women, there are young people, there are students, and there are workers who also have subscription cards,” says Fall. “It is also wheelchair accessible. We can clearly see an upward trend in those using the TER, which means that the populations has adapted to this new means of transport.”



“ *The relationship with the IsDB is excellent. IsDB has a very strong sense of urgency and the usefulness of this project.* ”

Meme Fall,

Head of Railway Systems and Rolling Stock Engineer

115,000 Passengers a day along phase 01.
230,000 expected when phase 2 completed.



Senegal's regional express train is also enhancing socio-economic conditions across the country by improving access to social services, such as healthcare facilities and schools.

On behalf of the TER executing Agency (APIX), Fall says "the relationship with IsDB is excellent. IsDB has a very strong sense of urgency and the usefulness of this project. We thank our financial partner IsDB for its involvement in the first phase and who is also accompanying us in the 2nd phase.

" The Islamic Development Bank Group is committed to improving and redefining transport infrastructure in all of its 57 member countries.

Senegal's regional express train is helping reduce travel time, improve the environment and promote regional integration and economies - putting the country 'on track' towards a resilient, climate conscious future.



"The relationship with IsDB is excellent. IsDB has a very strong sense of urgency and the usefulness of this project."

Meme Fall,
Head of Railway Systems and Rolling Stock Engineer

TÜRKIYE



TÜRKIYE

Redefining Renewable Energy

The damaging effects that climate change is having on our environment has become one of the most pressing challenges of our time.

This has led the Islamic Development Bank Group to prioritised projects that mitigate the critical impact on vulnerable communities and ecosystems in its 57 member countries.

In Turkiye, climate action is a top priority.

As a founding member of the IsDB, the bank has invested US\$740 million towards 35 renewable energy and energy efficiency projects that is helping transform and re-define the country's entire energy sector.

These projects have led to the instillation of new renewable energy power generation capacity, thousands of gigawatt hours of energy savings along with the elimination of millions of CO2 emissions.

IsDB Funded Renewable Energy Projects in Turkiye:

1,340 megawatts of new renewable energy power generation capacity installed

2,170 gigawatt hours of annual energy savings

3.2 million tons of CO2 emissions eliminated per year



ASAGI KALEKÖY HYDRO-SOALR

POWER PROJECT

Bingol, Türkiye | Operated by: Kalehan Enerji

Hydro Power Plant:

Asagi Kalekoy dam stretches **945 meters** long and **10 meters** wide

5 Years to build

500 megawatts hydro energy capacity

Solar Power Plant:

200,000 solar panels making it the largest in Türkiye

Covers an area of **11,000 square meters**

6 months to build

80 megawatts of solar energy capacity

The Islamic Development Bank has financed US\$180 million towards the construction and operation of Türkiye's very first, and the world's second largest hydro-solar hybrid power plant.

The combined renewable energy production of the Asagi Kalekoy hybrid power station in the eastern city of Bingol, delivers 590 megawatts of electricity to the country's national grid annually.



Tahsin Yazıcı is the operations manager of Kalehan Enerji who run the facility. He says the Hydro Power Plant facility was the first to be built, followed by the construction of the solar park to cover the periods of little or no rain fall.





The completed Asagi Kalekoy Hydro-solar power plant began commercial production in early 2021 and now produces clean, environmentally friendly clean energy for more than half a million people in Turkiye.

According to Yazıcı, within one year of operations, this plant reduced the country's oil imports by more than 173,000 tons and natural gas imports by 207 million cubic meters, helping the country become more energy independent.

The plant has also improved the socio-economic conditions in the region by providing full time employment for well over 100 people, in addition to the hundreds of temporary/contracted jobs offered during the hybrid power plants construction.

New schools, health centres and mosques, have also been developed in the region says Yazıcı.



“ In support of social projects, we offer scholarships to around 300 students in Bingöl every year and have built a student dormitory. We have also launched a technopark worth 30 million TL for the Bingöl University campus. ”

Tahsin Yazıcı,
Kalehan Energy's Operations Manager

ÖZMEN GEOTHERMAL POWER PROJECT

Manisa, Türkiye | Operated by: Sis Enerji



Özmen 1 Geothermal Plant:

IsDB contribution: **\$US18 million**

24 megawatt Organic Rankine
Cycle (ORC)

Produces **172**

The Özmen 1 Geothermal Power Project (GPP) in western Türkiye was awarded \$US18 million in financing from the IsDB and began operations in September 2019.

Geothermal energy is green energy that is generated by harnessing hot water or steam from the earth to power electricity-generating turbines.

The water can then be injected back into the ground for reuse.

According to Suat Yüce, the Deputy General Manager of Sis Energy who operate the plant, the ÖZMEN-1 GPP is a 24 megawatt Organic Rankine Cycle system power plant that can produce 172 megawatts of energy annually.

The power plant itself sits 600 meters above sea level, while the geothermal wells are 400-450 meters below ground.

“From this lower level,” explains Yüce “the water is carried directly to the power plant, and after it passes through the ORC (Organic Rankine Cycle) again, it is re-injected into the ground from an even higher level”, making it “the first of its kind in the world”.

“*The ÖZMEN-1 GPP is the first of its kind in the world.*”

Suat Yüce,
Deputy General Manager, Sis Energy

ÇATALCAWIND

POWER PROJECT

Istanbul, Türkiye | Operated by: Sanko Enerji



To further enrich the country's renewable energy infrastructure, the IsDB has invested US\$30 million into the operation of Çatalca Wind Power Project close to the iconic city of Istanbul.

20 wind turbines with the capacity of producing 60 megawatts of power were installed during the first phase of the project in 2008.

According to Evren Guvenc, the chief finance officer for Sanko Energy, who run the operation, the second phase added an additional 10 turbines in 2016 adding a further 33 megawatts of renewable energy potential.

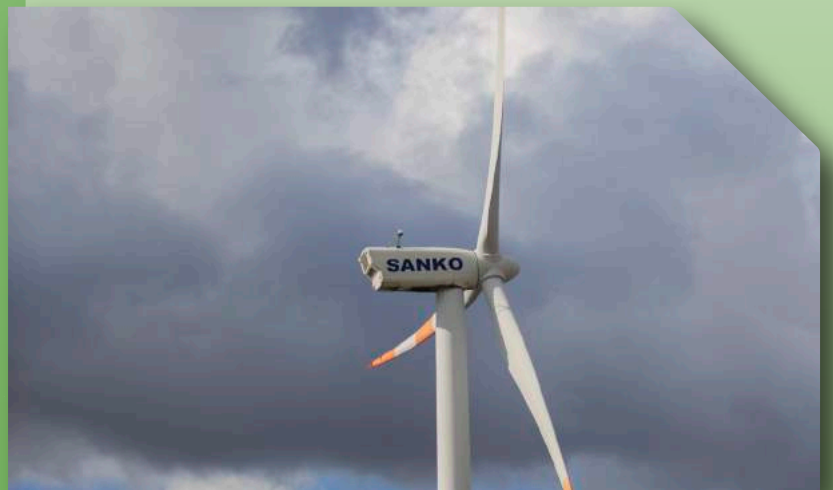
Annually, the 30 onshore wind turbines of the Çatalca wind power project powers approximately 115 thousand households with 285 thousand megawatts hours of clean renewable energy, replacing thousands of metric tons of CO2 emissions every year.

Catalca Wind Power Plant:

2008 - **20 wind turbines** installed
producing 60 megawatts

2016 - **10 wind turbines** installed
producing 33 megawatts

TOTAL = 93 megawatts of renewable
wind energy capacity





Being a gold standard certified project, the Çatalca Wind Power Plant is also benefiting the local community says Guvenc.

“We collaborate with the local schools, with the department, with the municipality and with the local people. We also clean the forest area against any or against any damage every year. So we maintain a very close and very good relationship with the local communities.”



“ *This is a very important project for Sanko Energy and it has contributed a lot towards the renewable energy generation in our country.* ”

Evren Guvenc,
CEO Sanko Energy

EGYPT



EGYPT

Sustainably Feeding the Future | Resilient Agriculture and Energy



One of the most sustainable economic drivers for a country's socio-economic development is agriculture.

All over the world, rural communities depend on growing crops in order to obtain food security and/or a financial income.

Yet, the negative and destructive effects of climate change on our environment is threatening agriculture around the world.

That is why the Islamic Development Bank (IsDB), has been committed to promoting the sustainable development of the agricultural sectors in its 57 member countries.



“ *We have the idea that New Valley Governorate can solve Egypt's food problems, especially since it has the potential with vast lands and groundwater, that are yet to be utilised.* ”

Aymen Safwat,

AFAQ Project Manager

The sparsely populated New Valley Governorate in south west Egypt has the potential of feeding the entire country of 104 million people according to The New Horizon Association for Social Development (AFAQ), a civil society organization in Egypt helping increase food security and employment opportunities for small farmers across the country.

Yet the arid landscape of Egypt's largest Governorate, has made it difficult to foster agricultural production, prompting the region to depend on the importation of fruits and vegetables from other governorates.

Together with The Sawiris Foundation for development, IsDB is co-financing a US\$ 242,000 project run by AFAQ in New Valley Governorate that is promoting the adoption of sustainable agriculture practices.

In addition to many hectares of farming fields, several greenhouses were also built to help protect the produce from the harsh environmental conditions all year round, ensuring the highest productivity rate possibly.



The space within them has been divided into several plots, which have been given to local farmers to plant a variety of crops not common before.

Sustainable Agriculture Project:

Total project Cost: **US\$ 242,000**

IsDB Contribution: **US\$96,820**

Number of Beneficiaries: **1,870**

Project Duration: **24 Months**





Agricultural professionals are available for any questions or support the local farmers require. Their harvest is then available for the farmers use.

According to Aymen Safwat, the project manager from AFAQ, local farmers used to rely on traditional crops, like wheat and alfalfa, but this project now allows them to grow different types of vegetables and fruits of higher economic value, such as eggplants, mango, grapes, oranges and pears. These enhanced varieties of seeds can then be distributed to other farmers in the established seed nursery.

Local farmer Amal Ibrahim Mousa has been given two plots in the village of Balat. She says the project has changed her life.

At first it was difficult she admits, but seeing the fruits of her hard labour, made it all worth it. Now she is able to work and provide for herself and her loved ones.



“ It has changed my life. I’m now working for myself, for my family, neighbours and friends. ”

Amal Ibrahim Mousa,
Local Farmer, Beneficiary



Sayed Mansou Okasha is another project beneficiary. With a wife and child, he is happy to have found a stable and consistent way to support his family. Sayyed has been able to quit menial work and rely solely on the income he makes from his harvests.

Mitigating the effects of climate change is a constant consideration.

The use of organic fertiliser to reduce CO2 emissions as well as increase the organic matter in the soil, which helps retain water better - providing for a better harvest.

Additionally, other local farmers in the area are being provided financial incentives to conserve water and energy by switching to solar-powered drip and sprinkler irrigating systems.

The local production of chemical-free organic fruits and vegetables is contributing to the change of agricultural practices in New Valley and helping make the Governorate less dependant on food imports.

The goal of the project, says Aymen, is to increase food productivity to allow the governorate to become more self-sufficient.

“I used to be a labourer, paid daily, but then I stopped working on other people’s land and the revenue here became sufficient for my needs. It has improved my income by 70%. ”

Sayed Mansou Okasha,
Local Farmer, Beneficiary

“The goal of the project is to increase food productivity to allow the governorate become more self-sufficient. ”

Aymen Safwat,
AFAQ Project Manager



Harnessing the Sun:

In Egypt, the IsDB has also contributed US\$80 million towards one of the largest solar farms in the world; the SCATEC Solar Project located in the Ben Ban Solar Park in Aswan Governorate.

The 6 SCATEC Solar Photovoltaic Power Projects are helping Egyptians capture the benefits of their endless sunshine by producing 350 mega watts of renewable energy capacity to Egypt's national grid.

This helps to offset around 311 thousand tons of CO2 emissions annually.



The construction of this solar park also created upwards of 2,000 jobs and helped channel a significant amount of foreign direct investment into the Egyptian economy.

IsDB Contribution to SCATEC Solar Project:

IsDB Contribution: **US\$ 80,00**

6 SCATEC Solar Photovoltaic Power Projects

Producing **350 Mega Watts**



Mali



Mali

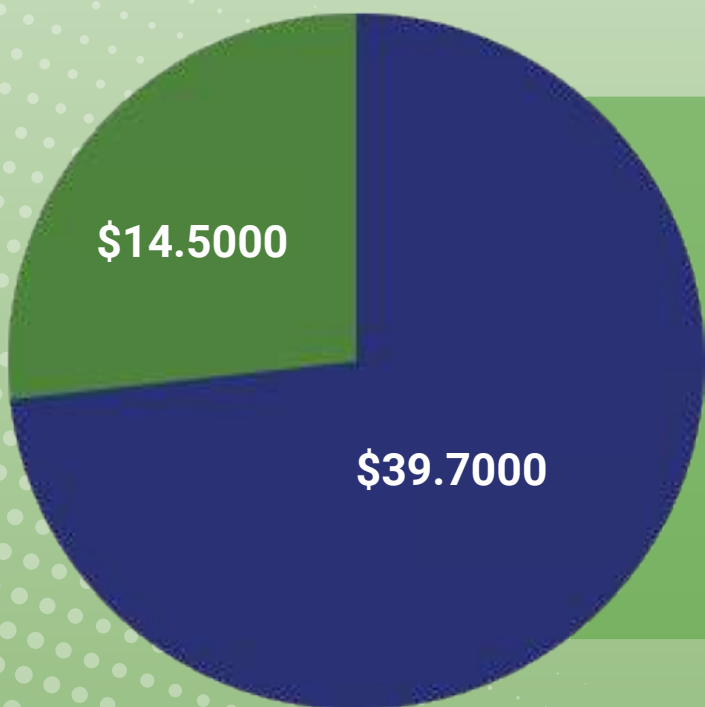
Modernizing Agricultural Practices



All across Africa, rural populations depend on agriculture to provide food security and sustainable incomes.

The development of modern agricultural practices for these communities can help protect resources, improve harvests and help tackle climate change.

As part of the Islamic Development Bank Group's commitment to the socio-economic growth of its 57 member countries, it has financed US\$14.5 million towards the enhancement of agricultural productivity in Sub-Saharan Africa, where the arid landscape and frequent droughts can make farming practices difficult.



“ *When the rain came, all the water just passed through our field and poured into the river.* ”

That's why we asked for a dam and they did it. Today we have access to water. ”

Aminata Souaré,
Farmer in Koulikoro



IsDB Investment



Total Funding



A total of US\$39.7 million is being invested into projects that will help rapidly scale up staple agricultural yields and improve irrigation systems for small farmers in Benin, Burkina Faso, Cameroon, Mali and Niger.

In Mali, a team from Smallholder Agricultural Productivity Improvement Project or SAPEP has been focused on increasing the use of natural rainfall in the lowlands and plains.

This hydro-agricultural development has seen IsDB funding go towards the building of dams and gullies that can trap and store rainwater, which then improves the productivity of crops and makes them less vulnerable to climate shocks.

Improving irrigation, enhances the health of the soil which improves crop yields.

Countries helped with IsDB funding for small farmers:

- ◆ Benin
 - ◆ Burkina Faso
 - ◆ Cameroon
 - ◆ Mali
 - ◆ Niger
-

**Rainwater trapped in dams and gullies.
Provides water for irrigation during dry seasons.**



Diversifying seeds and fertilisers and improving access to them is another way of developing more efficient agricultural practices.

In five different regions across Mali, local farmers working with SAPEP have learned how to increase availability of seeds through the establishment of hybrid seed production plots in the regions.

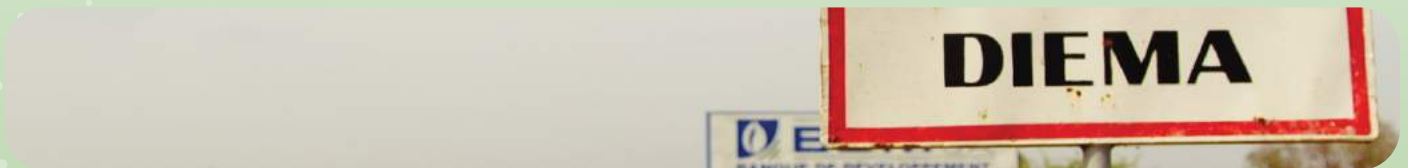
According to Mamadou Sissoko, the head of Agricultural in the small town of Diéma in the Kayes Region of western Mali, test fields were established where combined varieties of maize, sorghum, corn, and millet were planted.

These hybrids varieties offer different benefits from high yields to pest and drought resilience.

“We had our traditional seeds,” shares Sissoko “which did not give much yield but the project gave us very effective new seeds, which are fast and these seeds help us when the rainy season is shorter.”

It also helps to adapt practices that can fight against the effects of climate change.

“When it worked, we report this result to others,” said Sissoko.



“*The objective of the project is to adapt our practices for this period of climate change.*”

Mamadou Sissoko,
Head of Agricultural, Diéma Western Mali

Diversifying seeds and fertilizers enhanced varieties which are stronger against + more adaptable to against climate change.





Storage is another important factor when it comes to the preparation required for climate change's unprecedented weather patterns.

That is why the IsDB funds have also been directed towards the establishment of several metal silos in addition to two 1,000-ton warehouses where farmers can leave their over supply during the prosperous months.

Korotoumou Sangare, is a farmer also in Diema, Kayes, western Mali. She says the projects has helped her and fellow small farmers a lot.

"If the rainy season has gone well for you, she says, "you can come and keep your grain here so you have a solution during difficult times."

US\$14.5 million of IsDB Funding:

- ◆ Develop modern agricultural practices
- ◆ Protect resources
- ◆ Improve harvests yields
- ◆ Tackle climate change
- ◆ Improve irrigation systems
- ◆ Diversifying seeds and fertilisers
- ◆ Drought resilience
- ◆ Storage
- ◆ Business Centres





IsDB funds also supported the construction of 24 Agro Business Centres across the five regions in Mali SAPEP is active, which allow the small farmers a space to trade with each other, sell their excess crops and also network.

Another farmer in the Kayes region makes use of the store in his area regularly. Mamadou Magassa says the store has been very useful for him.

“Its first advantage is that it gives us the task of treating the seeds well. Anyone who can work on seed or who can reserve grain for another field season.”

Agriculture in the region Mamadou Sissoko, says that through the store “part of the harvest can also be sold, especially when the rainy season is fruitful. It helps us to be able to feed our families because if that is not done no one will be able to help us”

IsDB support in the development of agricultural productivity in lowlands and plains across countries in Sub-Saharan Africa is improving lives and highlighting the bank’s commitment to building resilient economies and sustainable futures in all its 57 member countries.



“ *It helps us to be able to feed our families because if that is not done no one will be able to help us.* ”

Mamadou Sissoko,
Head of Agricultural, Diéma Western Mali

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