# OSUN STATE PROJECT "SUSTAINABLE FOOD PRODUCTION"

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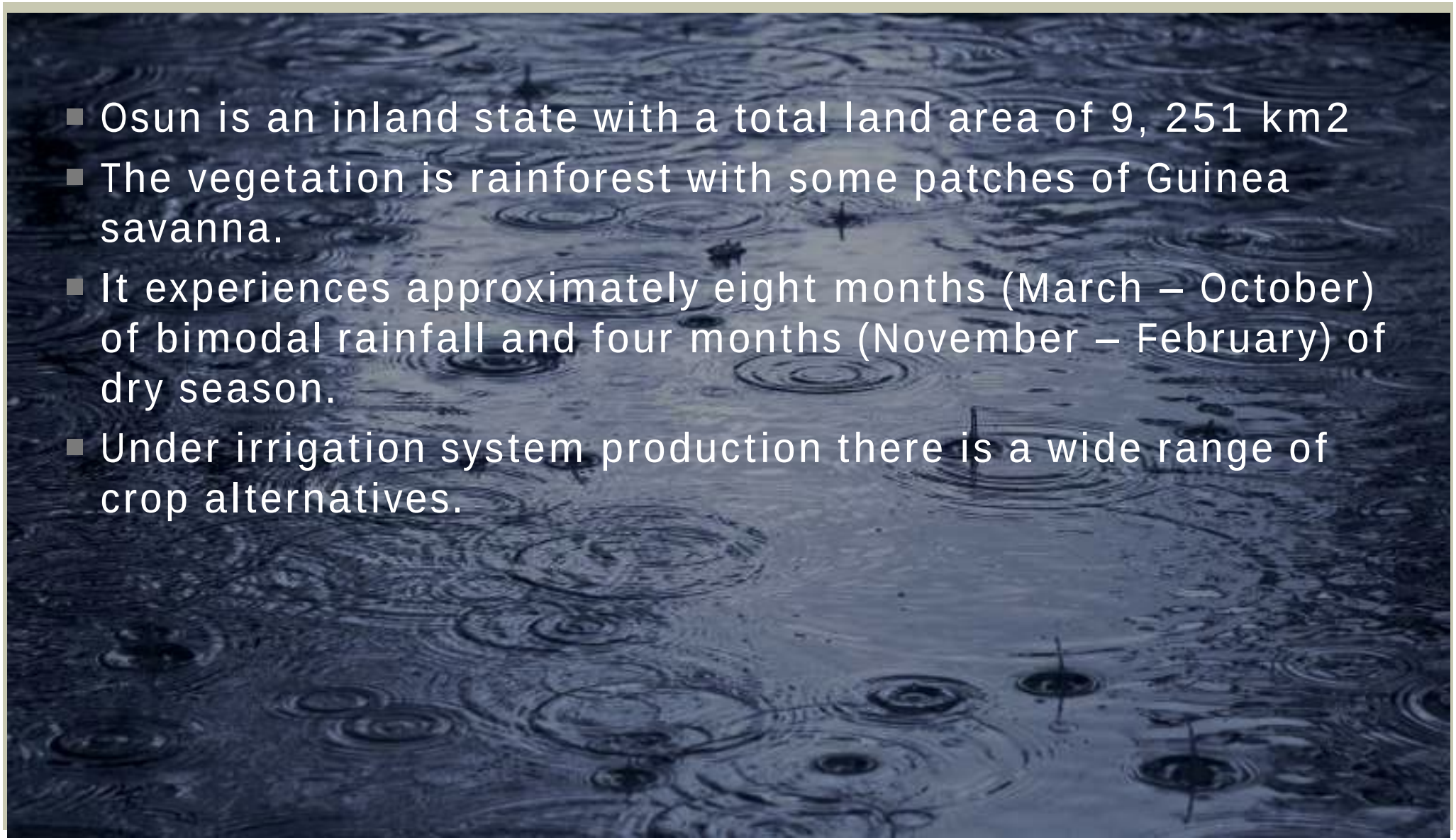
# CLIMA AND EDAPHOLOGY

1. RAINFALL AND TEMPERATURE
2. AGRO-ECOLOGICAL ZONES

# 1. RAINFALL AND TEMPERATURE

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tmax | 32,8 | 34,1 | 34,3 | 33,5 | 31,5 | 29,7 | 27,8 | 27,7 | 29,2 | 30,3 | 31,8 | 32,3 | **31,3** |
| Tmin | 20,6 | 21,3 | 22,5 | 22,5 | 22,1 | 21,6 | 21,0 | 21,0 | 21,0 | 20,8 | 21,0 | 20,6 | **21,3** |
| RHmean | 70,0 | 68,0 | 72,0 | 72,0 | 76,0 | 79,0 | 81,0 | 81,0 | 79,0 | 77,0 | 74,0 | 72,0 | **75,5** |
| RHmin | 45,9 | 43,7 | 48,3 | 49,7 | 55,5 | 60,4 | 64,7 | 65,0 | 60,1 | 55,9 | 51,2 | 48,1 | **54,6** |
| Wind (km/d) | 104,0 | 104,0 | 86,0 | 69,0 | 69,0 | 69,0 | 43,0 | 69,0 | 69,0 | 69,0 | 86,0 | 86,0 | **340,0** |
| Sunhours | 6,5 | 6,9 | 6,3 | 6,0 | 6,1 | 5,1 | 3,0 | 2,3 | 3,0 | 5,3 | 6,8 | 6,8 | **6,8** |
| | | | | | | | | | | | | | |
| ET fao | 4,06 | **4,52** | 4,45 | 4,27 | 4,03 | 3,55 | 2,88 | 2,82 | 3,07 | 3,58 | 3,90 | 3,84 | **3,75** |
| Eto month | 125,79 | 126,62 | 138,08 | 128,05 | 124,87 | 106,36 | 89,28 | 87,52 | 92,24 | 111,10 | 116,93 | 119,12 | **1365,95** |
| Eto max | | | **138,08** | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Kc average | 1,00 | 1,00 | **1,00** | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | **1,00** |
| | | | | | | | | | | | | | |
| Etc average | 4,06 | 4,52 | **4,45** | 4,27 | 4,03 | 3,55 | 2,88 | 2,82 | 3,07 | 3,58 | 3,90 | 3,84 | **3,75** |
| Etc average month | 125,79 | 126,62 | **138,08** | 128,05 | 124,87 | 106,36 | 89,28 | 87,52 | 92,24 | 111,10 | 116,93 | 119,12 | **1365,95** |
| Rain | 10,00 | 22,00 | **89,00** | 139,00 | 149,00 | 189,00 | 160,00 | 86,00 | 178,00 | 155,00 | 42,00 | 10,00 | **1229,00** |
| Rian eff | 10,00 | 21,00 | **76,00** | 108,00 | 113,00 | 132,00 | 119,00 | 74,00 | 127,00 | 117,00 | 39,00 | 10,00 | **946,00** |
| | | | | | | | | | | | | | |
| ET max | **-115,79** | -105,62 | -62,08 | -20,05 | -11,87 | 25,64 | 29,72 | -13,52 | 34,76 | 5,90 | -77,93 | -109,12 | **-419,95** |

# 1. RAINFALL AND TEMPERATURE



- Osun is an inland state with a total land area of 9, 251 km2
- The vegetation is rainforest with some patches of Guinea savanna.
- It experiences approximately eight months (March – October) of bimodal rainfall and four months (November – February) of dry season.
- Under irrigation system production there is a wide range of crop alternatives.

# 2. AGRO-ECOLOGICAL ZONE


According to the classification by Winrock (1992): based upon the amount and distribution of rainfall, the altitude (which affects temperature) and the length of growing period (LGP).

# 2. AGRO-ECOLOGICAL ZONE (Cont.)

| AEZ<br>Agro-ecological Zones | Lengrh of Growing Period (LGP) (days) | Rainfall (mm/year) |
|---|---|---|
| Arid | <90 | 0-500 |
| Semi-arid | 90-180 | 500-1000 |
| Sub humid | 180-270 | 1000-1500 |
| Humid | >270 | >1500 |
| Highland | n.a. | n.a. |

# PROJECT PROPOSAL

1. PRELIMINAR IDEAS
2. CROPPING SYSTEM
3. AGRICULTURAL INVESTMENT
4. INDUSTRIAL INVESTMENT

# 1. PRELIMINAR IDEAS

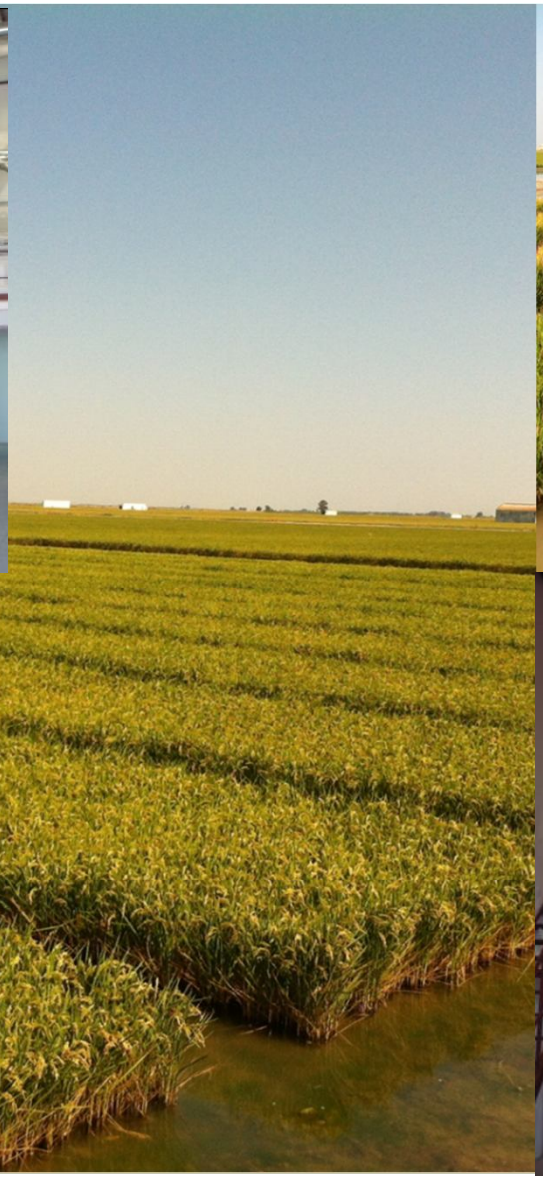
- According to the actual situation of the nation on the heavy reliance on food importation, it seems essential that the region should produce food crops.
- Hereby we propose the following cropping system, always bearing in mind that the soil and water requirements for these crop alternatives have to be in-depth studied and met.
- A detailed feasibility study would be necessary in order to identify constraints and develop appropriate techniques for increasing the quantity and quality of the products.
- The main objective of this proposal is to develop the agro-indrustrial network in the Osun State with modern methods and advanced technology.

# 2. CROPPING SYSTEM

- Phase 1: PLANTING AREA = 10.000 ha
  - 5.000 ha RICE
  - 5.000 ha ANNUAL CROPS
    - 3 YEARS CORN
    - 1 YEAR TOMATO
- Phase 2: PLANTING AREA = 15.000 ha
  - 7.500 ha RICE
  - 7.500 ha ANNUAL CROPS
    - 3 YEARS CORN
    - 1 YEAR TOMATO

| Crops | Has. | Crops per ye | Yield/Crops | Tns/Year | Price (€/Tn) | Incomes |
|---|---|---|---|---|---|---|
| Rice | 5.000,00 | 1,50 | 6,50 | 48.750,00 | 430,00 | **20.962.500** |
| Tomato (Can equivalent) | 1.250,00 | 1,00 | 80,00 | 100.000,00 | 110,00 | **11.000.000** |
| Corn | 3.750,00 | 1,50 | 12,00 | 67.500,00 | 300,00 | **20.250.000** |
| | **10.000,00** | | | | | **52.212.500** |

# 2.1. RICE



# 2.2. INDUSTRIAL TOMATO

# 2.3. CORN

# 3. AGRICULTURAL INVESTMENT

| | Rice | Tomato | Corn | TOTAL |
|---|---|---|---|---|
| Trabajos técnicos | 1.300.000 | 451.600 | 886.000 | **2.637.600** |
| Adecuación de Terrenos | 20.000.000 | 750.000 | 2.250.000 | **23.000.000** |
| Sistema de riego | 9.000.000 | 7.500.000 | 16.875.000 | **33.375.000** |
| Farm Machinery | 3.400.000 | 2.870.000 | 2.625.000 | **8.895.000** |
| Vehículos | 420.000 | 120.000 | 300.000 | **840.000** |
| Office and communications | 150.000 | 50.000 | 100.000 | **300.000** |
| **Total farm investment** | **34270000** | **11741600** | **23036000** | **69.047.600** |

# 4. INDUSTRIAL INVESTMENT

| | Rice | Tomato | Corn | TOTAL |
|---|---|---|---|---|
| Estudios técnicos | 820.000 | 720.000 | 140.000 | **1.680.000** |
| Obra civil | 5.000.000 | 5.000.000 | 1.200.000 | **11.200.000** |
| Maquinaria e instalaciones | 6.500.000 | 7.000.000 | 1.500.000 | **15.000.000** |
| Electrificación y generación | 1.600.000 | 4.500.000 | 300.000 | **6.400.000** |
| Otros | 750.000 | 1.500.000 | 500.000 | **2.750.000** |
| **Inversión Industrial** | **14670000** | **18720000** | **3640000** | **37.030.000** |
| Residence | 240.000 | 140.000 | 100.000 | **480.000** |
| Others | 200.000 | 100.000 | 100.000 | **400.000** |
| **INVESTMENT** | **49380000** | **30701600** | **26876000** | **106.957.600** |
| Working Capital | 7.000.000 | 6.250.000 | 4.500.000 | **17.750.000** |
| **FINANTIAL NECESITIES** | **56380000** | **36951600** | **31376000** | **124.707.600** |

# CONCLUSIONS

**WE FIND THERE IS A GREAT POTENTIAL FOR DEVELOPING THE PROJECT IN THE STATE OF OSUN.**

**WE WISH TO STATE TEPRO'S COMPLETE DISPOSITION TO HELP ACHIEVE THE OBJECTIVE OF THE PROPOSED PROJECT.**

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