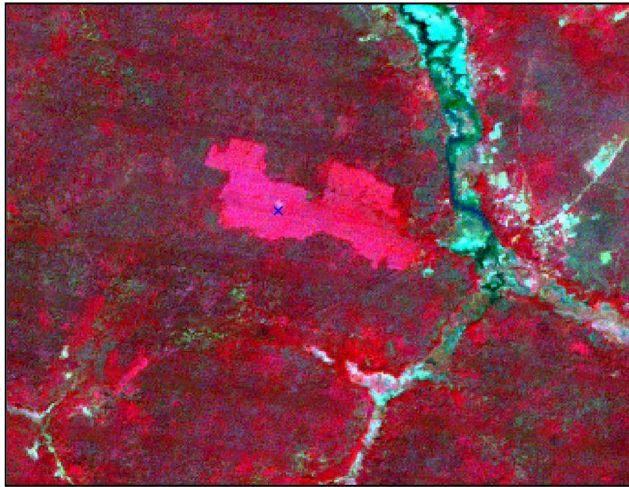


## 1APf-g-1 - Large to Medium Tree Plantation

### Class Description:

“*Large to Medium Tree Plantation*” describes rainfed plantations with size bigger than 2 hectares. It occurs mainly in the central and western Senegal, in particular Louga, Thies and Dakar regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

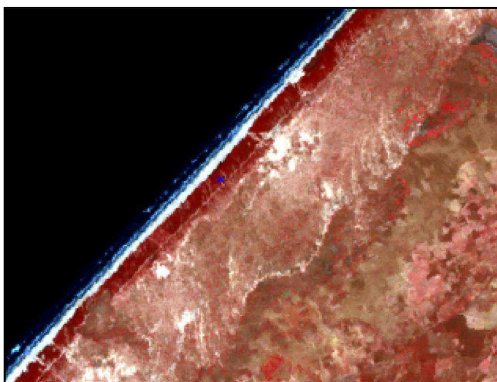


Aerial Photograph

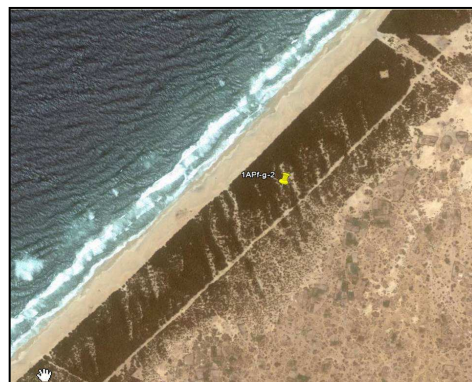
## 1APf-g-2 - Large to Medium Tree Plantation – Casuarina sp. Plantations

### Class Description:

“*Large to Medium Tree Plantation – Casuarina sp.*” describes Casuarina (*C.equisetifolia*) plantations with size bigger than 2 hectares. The plantation water supply is rainwater. It is found all along the coastal area of Dakar, Thies and Louga regions. In fact, Casuarina is used to stabilize sand dunes, that occur all along the coast.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

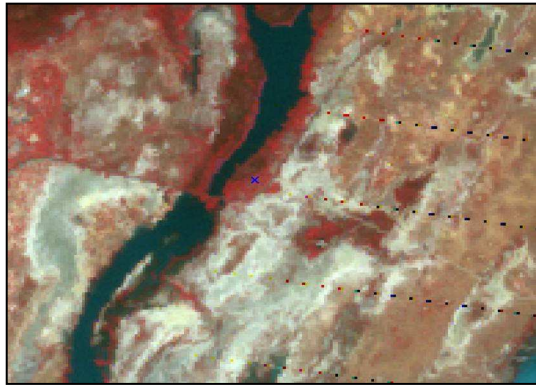


Aerial Photograph

## 1APf-p-1 - Small Tree Plantation

### Class Description:

“*Small Tree Plantation*” describes rainfed plantations with size smaller than 2 hectares. The plantation water supply is rainwater. It occurs rarely in the central and western regions of Senegal to describe local situations.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

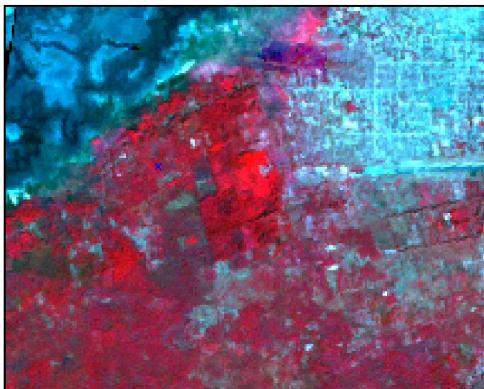


Field Photograph

## 1AV-g - Large to Medium Tree crops

### Class Description:

“*Large to Medium Tree crops*” describes permanent rainfed orchards with field size bigger than 2 hectares. It mainly refers to large mango and orange crops. It occurs in the western and southern portions of Senegal (Dakar, Thies, Fatick, Ziguinchor and Kolda regions).



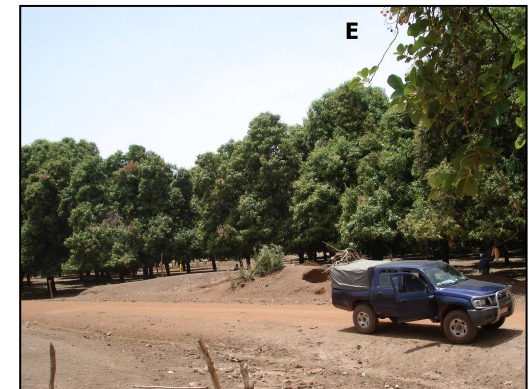
Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



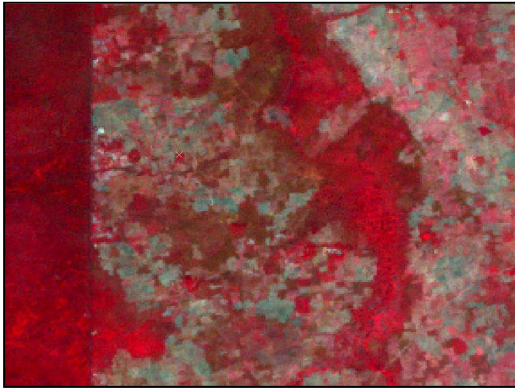
Field Photograph

## 1AV-P - Small Tree crops

### Class Description:

“Small Tree crops” describes rainfed orchards with field size smaller than 2 hectares. It occurs in western and southern portions of Senegal and it mainly refers to mango and orange orchards. In Dakar, Thies, Fatick regions its detection is simple since it is often associated to rainfed herbaceous crops appearing, on the Landsat ETM images (RGB 432 composit), as dark red dots between the pink/light brown reflectance of the herbaceous fields.

On the other hand, in Ziguinchor and Kolda regions, the reflectance of the orchards is almost the same of the natural trees covering the area; so, when this class is mixed with natural vegetation, its detection is difficult.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

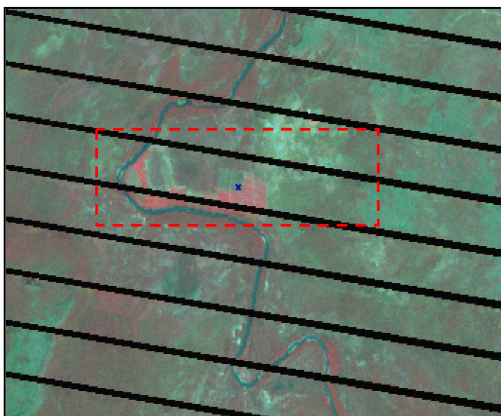


Field Photograph

## 1arV-g-Ir - Large to Medium Irrigated Banana crops

### Class Description:

“Large to Medium Irrigated Banana crops” describes banana crops with surface irrigation and field size bigger than 2 hectares. It is found only in the Tambacounda region, near the eastern Gambia border. The class was detected on the basis of local staff knowledge. The zone where the class occurs neither is covered by Google Earth high resolution images, nor was checked during the field work verification.



Landsat ETM (423 RGB composit)

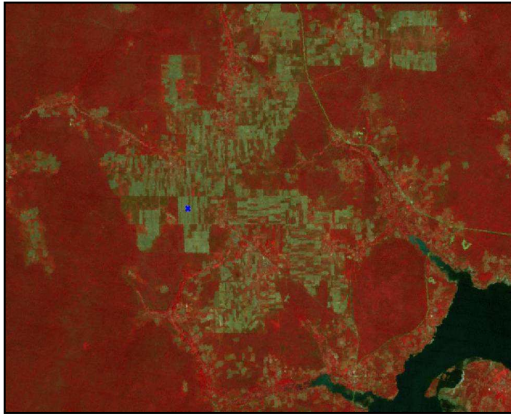


Google Earth image

## 1H-g - Large to Medium Rainfed Herbaceous crops

### Class Description:

“Large to Medium Rainfed Herbaceous crops” describes rainfed single crops with field size bigger than 2 hectares. It is found mainly in Kaolack and Kolda regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

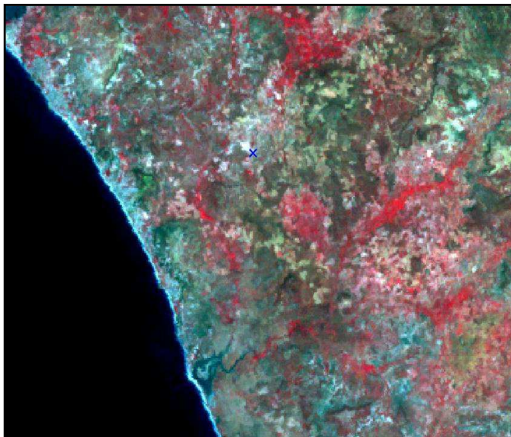


Field Photograph

## 1H-p - Small Rainfed Herbaceous crops

### Class Description:

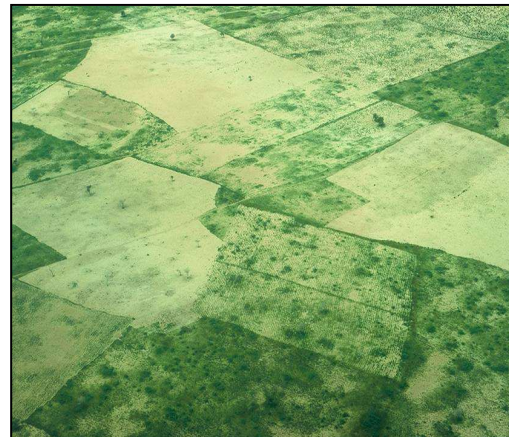
“Small Rainfed Herbaceous crops” describes rainfed single crops with field size smaller than 2 hectares. It occurs mainly in western Senegal (Dakar and Thies regions). Its reflectance is very similar to the one of the class “Small Rainfed Herbaceous crops with a layer of sparse trees” with which could be confused. The crops are mainly constituted by peanuts. Secondly it is constituted by: millet, maize, sorghum, beans, rice (terrestrial).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



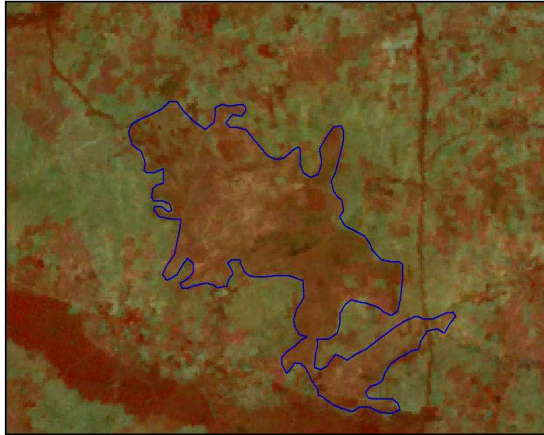
Field Photograph

## 1H-p-Is - Small Rainfed Herbaceous crops – Isolated

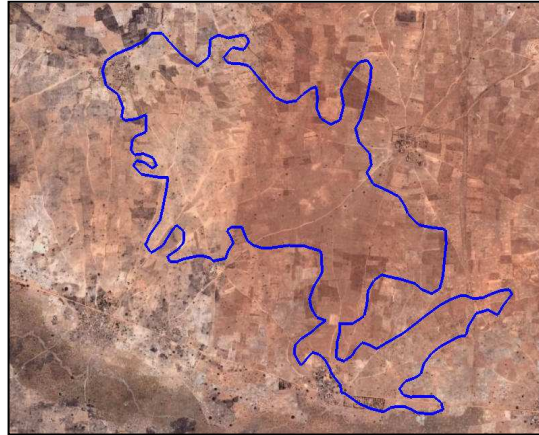
### Class Description:

“Small Rainfed Herbaceous crops – Isolated ” is the just described class “Small Rainfed Herbaceous crops” representing a scattered-isolated spatial distribution, that is to say the percentage of fields is more than 10 percent but less than 20 percent of the whole polygon’s area.

It is always found as second term in mixed units. The crops are mainly constituted by peanuts; secondarily it is constituted by: millet, maize, sorghum, beans, rice (terrestrial).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Google Earth High Resolution image (detail)

## 1H-g+A - Large to Medium Rainfed Herbaceous crops with a layer of Sparse Trees

### Class Description:

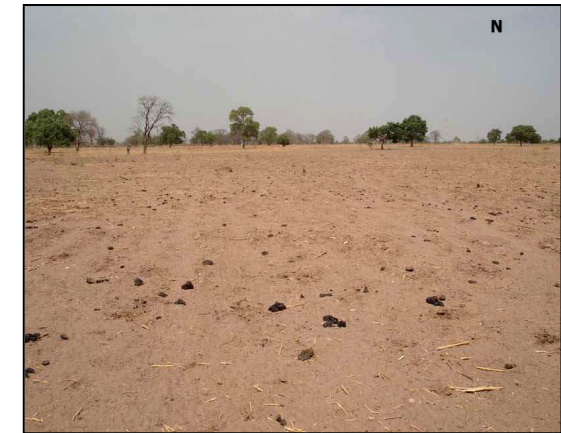
“Large to Medium Rainfed Herbaceous crops with a layer of Sparse Trees” describes rainfed single crops with field size bigger than 2 hectares; inside the agricultural area is present a layer of natural trees having a cover ranging from 1% to 15%. The crops are mainly constituted by peanuts; secondarily it is constituted by: millet, maize, sorghum, beans, rice (terrestrial). It is found mainly in central Senegal (Kaolack, Diourbel and Louga regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

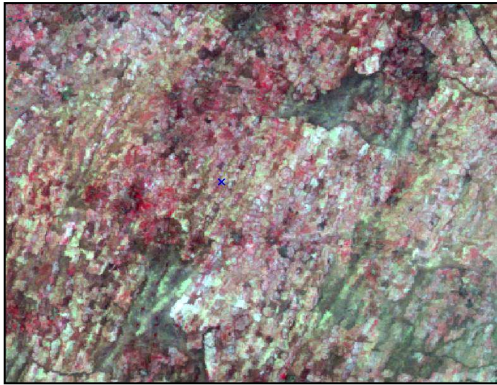


Field Photograph

## 1H-p+A - Small Rainfed Herbaceous crops with a layer of Sparse Trees

### Class Description:

“Small Rainfed Herbaceous crops with a layer of Sparse Trees” describes rainfed single crops with field size smaller than 2 hectares; inside the agricultural area is present a layer of natural trees covering 1% to 15% of the area. The crops are mainly constituted by peanuts; secondarily it is constituted by: millet, maize, sorghum, beans, rice (terrestrial). It is the more recurring class and it is found all over Senegal. It covers great portion of Louga, Thies, Diourbel, Fatick and Kaolack regions, identifying the so called “Peanut Basin”



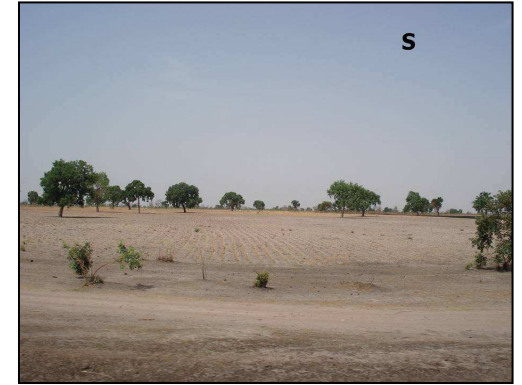
Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

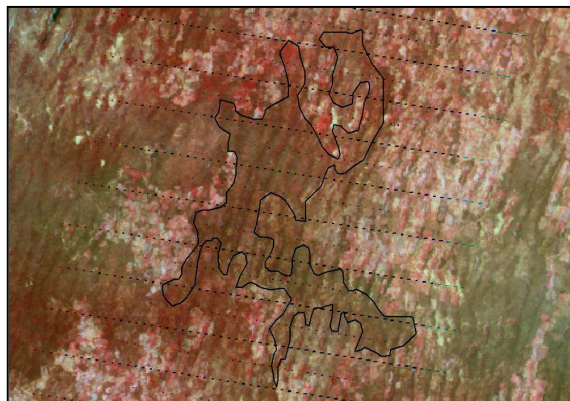


Field Photograph

## 1H-p+A-Is - Small Rainfed Herbaceous crops with a layer of Sparse Trees– Isolated

### Class Description:

“Small Rainfed Herbaceous crops with a layer of Sparse Trees– Isolated ” is the just described class “Small Rainfed Herbaceous crops with a layer of Sparse Trees”, representing a scattered-isolated spatial distribution, that is to say the percentage of fields is more than 10 percent but less than 20 percent of the whole polygon’s area. It is always found as second term in mixed units. The crops are mainly constituted by peanuts. Secondarily it is constituted by: millet, maize, sorghum, beans, rice (terrestrial).



Landsat ETM (423 RGB composit)

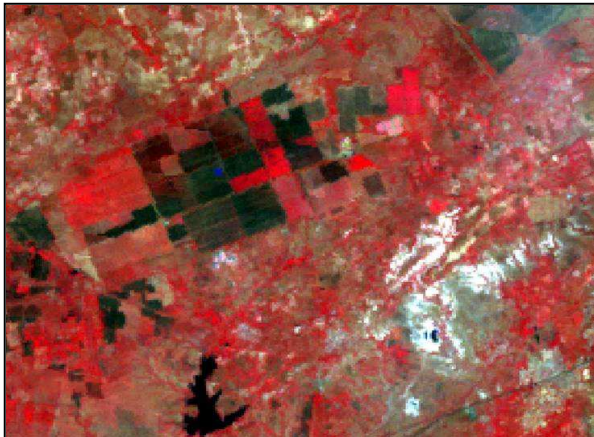


Google Earth High Resolution image

## 1H-g-Ir Large to Medium Irrigated Herbaceous crops

### Class Description:

“Large to Medium Irrigated Herbaceous crops” describes irrigated single crops with field size bigger than 2 hectares. The crop is permanent, that is to say the same crop covers the land for at least two years. It occurs mainly in Dakar, Thies and Saint-Louis regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

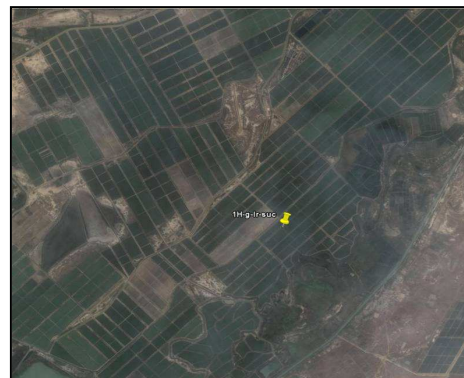
## 1H-g-Ir-suc - Large to Medium Irrigated Herbaceous crops – Sugar Cane

### Class Description:

“Large to Medium Irrigated Herbaceous crops – Sugar Cane” describes irrigated Sugar Cane crops having field size bigger than 2 hectares. There are two sequential crops where sequential indicates the growing of two or more crops in sequence on the same field within one growing season. The succeeding crop is planted after the preceding one is harvested. The fields are permanent (the same crop covers the land for at least two years) and the water supply is constituted by surface irrigation. It is found only in the northern portion of Senegal, in the Saint-Louis region.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

## 1H-p-lr - Small Irrigated Herbaceous crops

### Class Description:

“Small Irrigated Herbaceous crops” describes irrigated crops with field size smaller than 2 hectares.

Crops are usually constituted by vegetables. It is mainly found close to the coastal area of Dakar, Thies and Louga regions; it is also found close to the Senegal river in Saint Louis and Matam regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

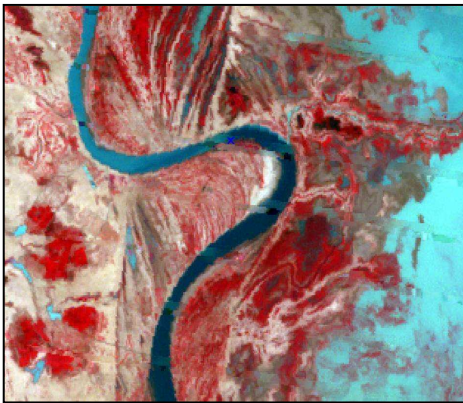


Field Photograph

## 1H-p-de - Small Post Flooding Herbaceous crops

### Class Description:

“Small Post Flooding Herbaceous crops” describes permanent crops with field size smaller than 2 hectares. The water supply is post-flooding irrigation, meaning that after a river overflow, water has flooded the field; the water infiltrated into the soil is used intentionally as a water reserve for crop cultivation. The crop uses this water reserve for establishment. This class is typically located inside the Senegal river basin, along the river banks (Saint Louis, Matam and Tambacounda regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

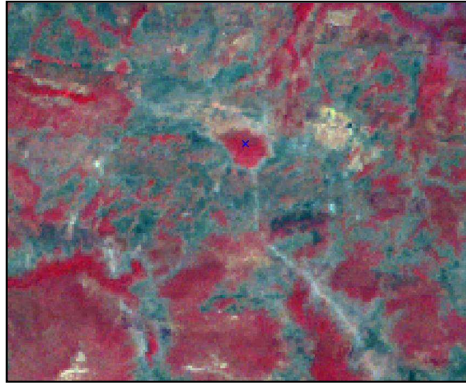


Aerial Photograph

## 2AF - Closed Trees

### Class Description:

“Closed Trees” describes a layer of broadleaved deciduous trees covering more than 65 percent of a defined area. The trees have a generic height ranging from 3 to 30 m. This class is found in the south of Senegal, covering great portion of Ziguinchor, Kolda and southern Tambacounda regions.



*Landsat ETM (423 RGB composit)*



*Google Earth High Resolution image*



*Aerial Photograph*



*Field Photograph*

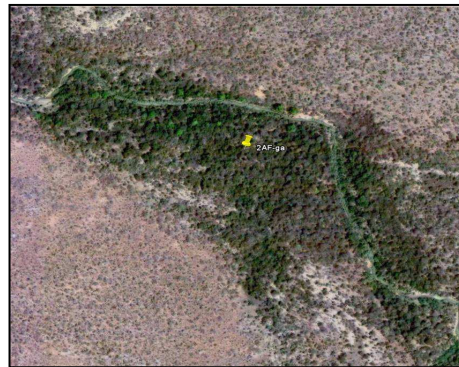
## 2AF-ga - Closed Gallery Forest

### Class Description:

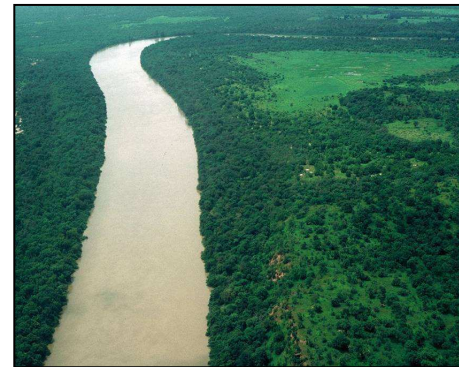
“Closed Gallery Forest” describes a layer of broadleaved deciduous trees covering more than 65 percent of a defined area. It is the forest located along rivers or streams. Trees' height range from 14 to 30 m. This class is mainly found in the south of Senegal (Ziguinchor, Kolda and Tambacounda regions).



*Landsat ETM (423 RGB composit)*



*Google Earth High Resolution image*



*Aerial Photograph*



*Field Photograph*

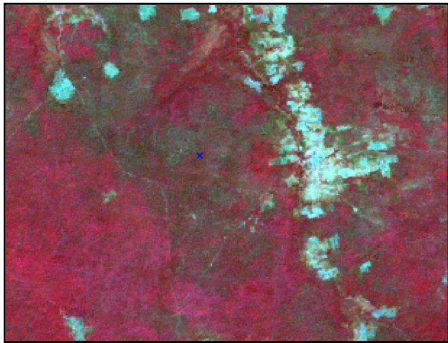
## 2AO - Open Trees

### Class Description:

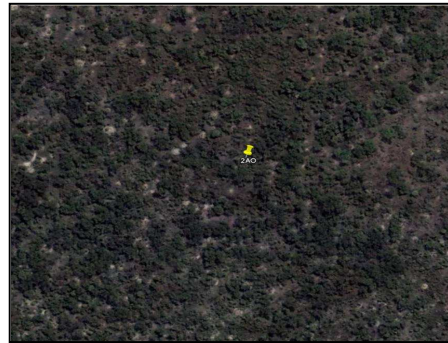
“Open Trees” represents a forest with an open coverage. It is described as follow:

- a first layer of broadleaved deciduous trees with open (40 - 65%) cover, and a generic height (3 - 30 m).
- a second shrubs layer with general open (15 - 65%) cover and height (0,3 - 5 m).
- a third herbaceous layer with a closed to open (15 - 100%) cover and generic height (0,03 - 3 m).

This class is found in the south of Senegal, covering great portion of Ziguinchor, Kolda and south-eastern Tambacounda regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

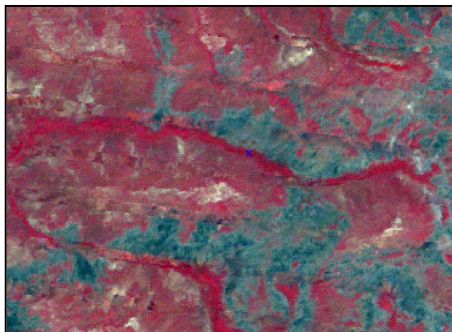
## 2AO-ga - Open Gallery Forest

### Class Description:

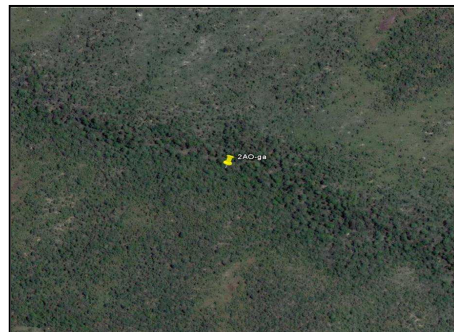
“Open Gallery forest” represents the forest located along rivers and streams with open coverage, and it is described as follow:

- a first layer of broadleaved deciduous trees with open (40 - 65%) cover and a generic height (3 - 30 m).
- a second shrubs layer with general open (15 - 65%) cover and generic height (0,3 - 5 m).
- a third herbaceous layer with a closed to open (15 - 100%) cover and generic height (0,03 - 3 m).

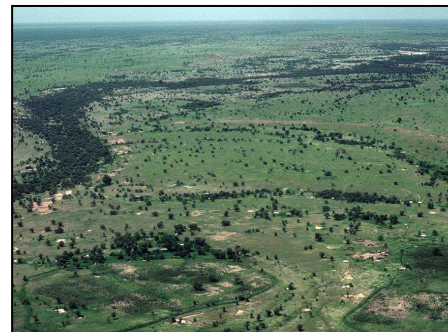
This class is found all over Senegal, but it is most represented in Kaolack, Matam and Tambacounda regions.



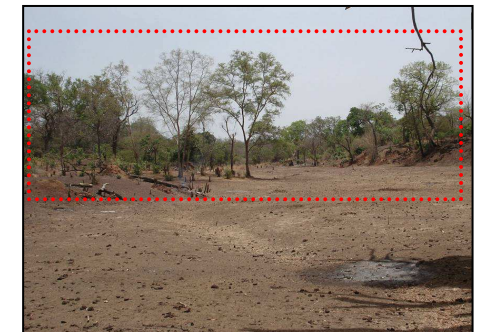
Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

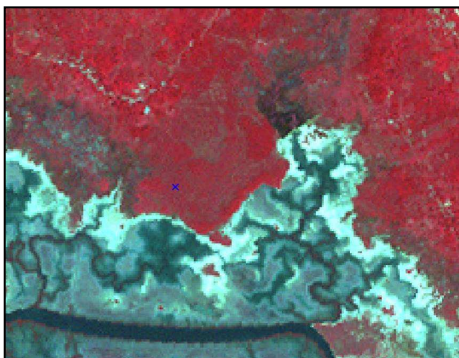
## 2ATO - Very Open Trees

### Class Description:

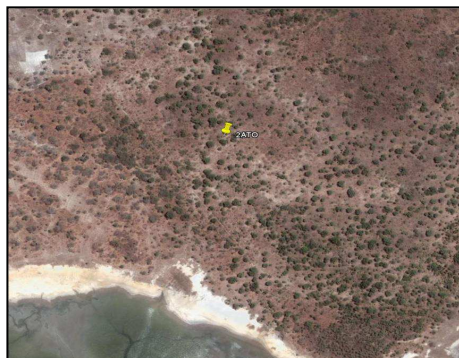
“*Very Open Trees*” represents a woodland described as follow:

- a first layer of broadleaved deciduous trees with a very open (15 - 40%) cover and a generic height (3 - 30 m).
- a second shrubs layer with open (15 - 65%) cover and generic height (0,3 - 5 m).
- a third herbaceous layer with a closed to open cover (15 - 100%) and generic height (0,03 - 3 m).

This class is found all over Senegal, but is most represented in Tambacounda region.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

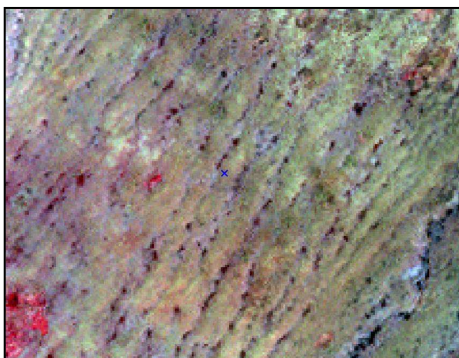


Field Photograph

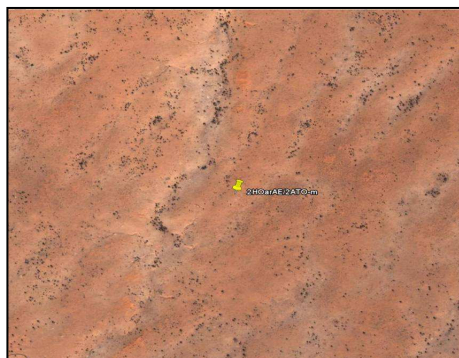
## 2ATO-m - Very Open Trees in Mare Environment

### Class Description:

“*Very Open Trees in Mare Environment*” is described as the class “*Very Open Trees*”, with the difference that it shows a fragmented spatial distribution. It means that even if the cover is very open, it is interrupted in the sense of *Striped* or *Cellular* fragmentation. It represents the portion of woody vegetation developed in the so called “*Mare environment*”, i.e. striped small depressions in flat areas where the rainwater stands for short periods. This class is always present as mixed unit and it is generally associated with the class “*2HOAarE - Closed to Open Herbaceous vegetation with Sparse Trees and Shrubs*”. It is found in central and northern Senegal, covering great portions of Saint-Louis, Louga and Matam regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Aerial Photograph

## 2arF - Closed Shrubs

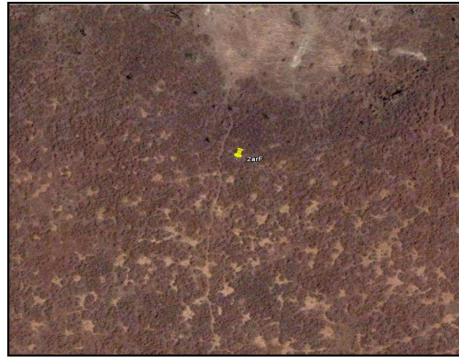
### Class Description:

“Closed Shrubs” describes a layer of broadleaved deciduous shrubs covering more than 65 percent of a defined area. The shrubs have a generic height ranging from 0,3 to 5 m. This class is not very representative and is mainly found in eastern Senegal (Tambacounda region).

Woody vegetation with height lower than 5 meters belongs to the class shrubs. So, inside this class could be found also small trees.



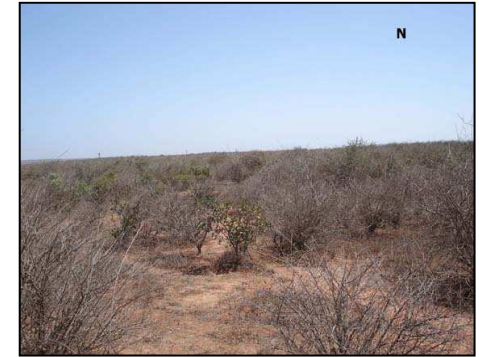
Landsat ETM (423 RGB composite)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

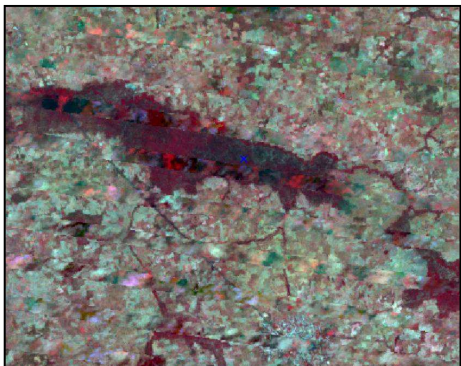
## 2arOAE - Open Shrubs with emergent Trees

### Class Description:

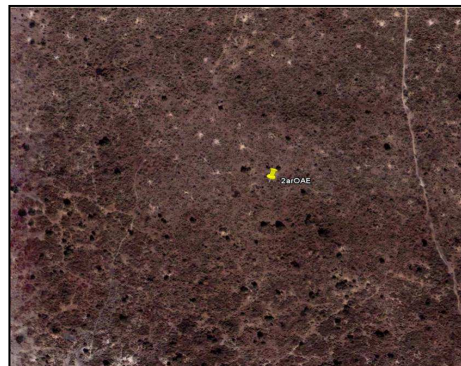
“Open Shrubs with emergent Trees” represents a shrubland, described as follow:

- a first layer of broadleaved deciduous shrubs with open (65 - 40%) cover and generic height (0,3 - 5 m).
- a second herbaceous layer with a closed to open cover (15 - 100%) and generic height (0,03 - 3 m).
- a third trees layer with sparse (4-15%) cover and generic height (3 - 30 m).

This class is mainly found in south and eastern Senegal, covering great portions of Tambacounda, Kolda and Ziguinchor regions; it is also well represented in Thies region.



Landsat ETM (423 RGB composite)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

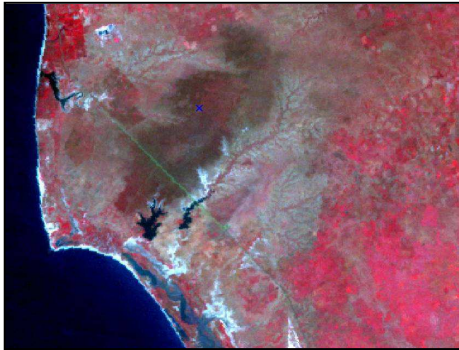
## 2arO - Open Shrubs

### Class Description:

“Open Shrubs” represents a shrubland, described as follow:

- a first layer of broadleaved deciduous shrubs with open (65 - 40%) cover and generic height (0,3 - 5 m).
- a second herbaceous layer with a closed to open (15 - 100%) cover and generic height (0,03 - 3 m).

It is derived from the just described class 2arOAE, in order to define an open shrubland where emergent trees are not present or negligible. During the fieldwork this class was mainly observed as protected areas surrounded by agricultural areas. This class is found all over Senegal but it is not very frequent. It is most represented in Tambacounda region.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

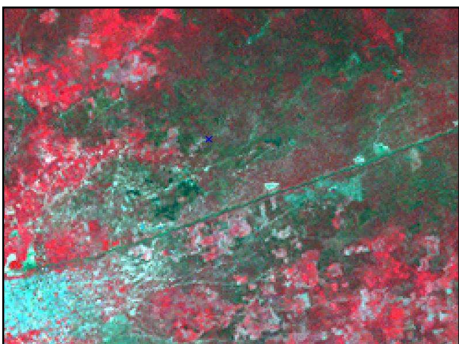
## 2arTOAE - Very Open Shrubs with emergent Trees

### Class Description:

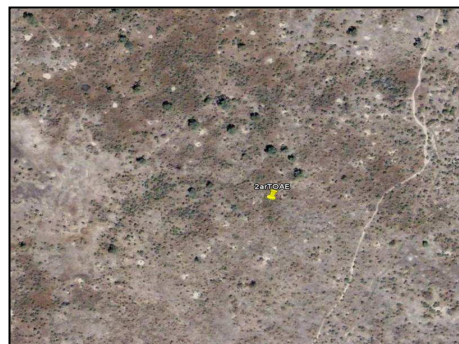
“Very Open Shrubs with emergent Trees” represents a shrubland, described as follow:

- a first layer of broadleaved deciduous shrubs with very open (40 - 15%) cover and generic height (0,3 - 5 m).
- a second herbaceous layer with a closed to open cover (15 - 100%) and generic height (0,03 - 3 m).
- a third trees layer with sparse (4 - 15%) cover and generic height (3 - 30 m).

This class is mainly found in southern and eastern Senegal, covering great portions of Tambacounda, Kolda and Ziguinchor regions; it is also well represented in Thies region.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

## 2arTO - Very Open Shrubs

### Class Description:

“*Very Open Shrubs*” defines a shrubland described as follow:

- a first layer of broadleaved deciduous shrubs with very open (40 to 15%) cover, and generic height (0,3 - 5 m).
- a second herbaceous layer with closed to open cover (15 - 100%) and generic height (0,03 – 3 m).

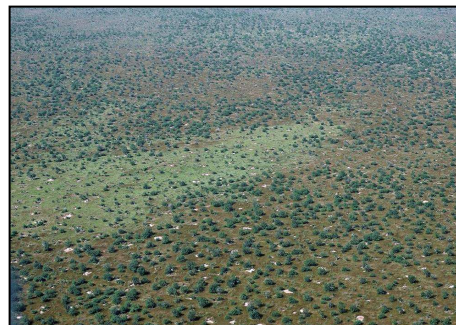
It is derived from the just described class 2arTOAE, in order to define a very open shrubland where emergent trees are not present or negligible. During the fieldwork this class was mainly observed as protected areas surrounded by agricultural areas. This class is found all over Senegal but it is not very frequent. It is most represented in Kaolack and Tambacounda regions.



Landsat ETM (423 RGB composite)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

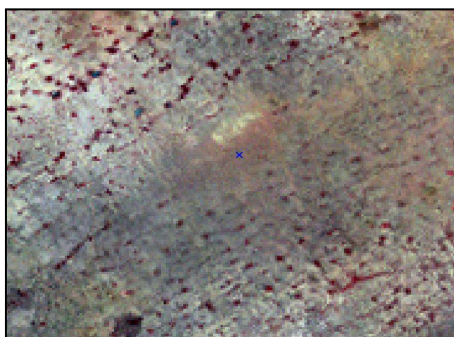
## 2HOArE - Closed to Open Herbaceous vegetation with Sparse Trees and Shrubs

### Class Description:

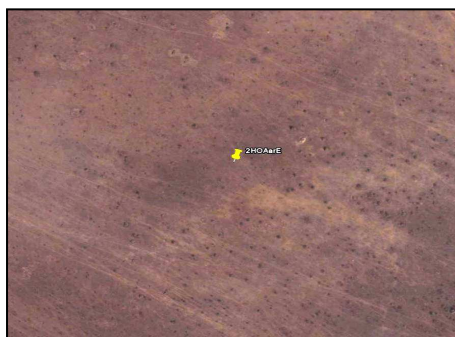
“*Closed to Open Herbaceous vegetation with Sparse Trees and Shrubs*” represents a grassland described as follow:

- a first herbaceous layer with closed to open (40 -100%) cover with generic height (0,03 - 3 m).
- a second trees layer with sparse (4 - 15%) cover and generic height (3 - >30 m).
- a third shrubs layer with sparse (4 - 15%) cover and generic height (0,3 - 5 m).

This class is one of the more recurring and it is found all over Senegal. It is most represented the central and north of Senegal, and it covers great portions of Saint-Louis, Louga, Diourbel, Matam and Kaolack regions. In northern Senegal it is often associated to the class “Very Open Trees in Mare Environment ”



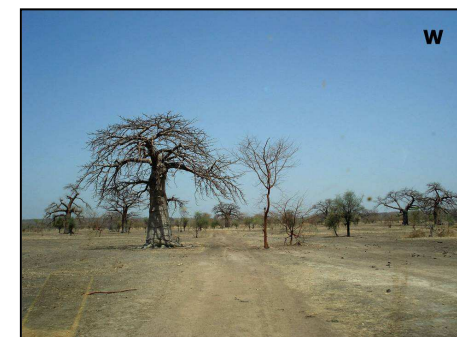
Landsat ETM (423 RGB composite)



Google Earth High Resolution image



Aerial Photograph



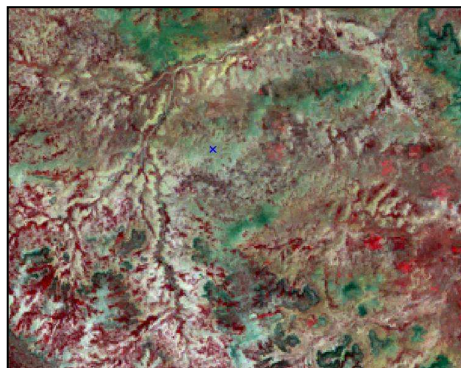
Field Photograph

## 2HOF - Closed to Open Herbaceous vegetation

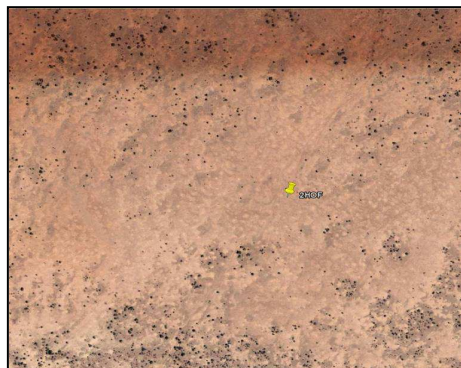
### Class Description:

“Closed to Open Herbaceous vegetation” represents a grassland described as a *herbaceous* layer with closed to open (40 - 100%) cover and generic height (0,03 - 3 m). This class is found all over Senegal but it is most represented in Thies, Matam and Tambacounda regions.

The interpretation of this class was often problematic because of the similar reflectance with the class “Closed to Open Herbaceous vegetation with Sparse Trees and Shrubs”



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



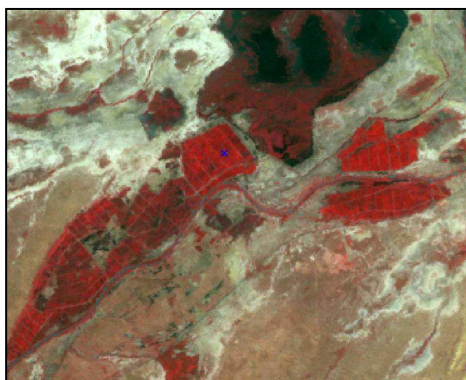
Field Photograph

## 3HH-g - Large to Medium Rice crops

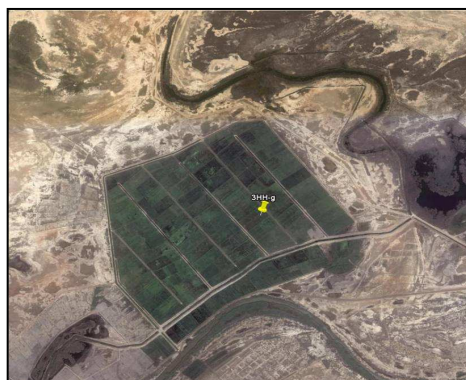
### Class Description:

“Large to Medium Rice crops” describes rice crops with field size bigger than 2 hectares.

It represents an aquatic or regularly flooded cultivated area with graminoids crops. During the cultivation period the water persists the whole day. One herbaceous terrestrial additional crop grows in sequence on the same field within one growing season, but the main crop is rice. The succeeding crop is planted after the preceding one is harvested. It is found along the Senegal river in northern and eastern Senegal. It is mainly located in the Saint-Louis region, even if could be found also in Matam and Tambacounda regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

### 3H-p - Small Rice crops

#### Class Description:

“*Small Rice crops*” describes rice crops with field size smaller than 2 hectares.

It represents an aquatic or regularly flooded cultivated area with graminoids crops. In this case crops grow in waterlogged depressions and the agricultural practices are not linked to mechanized farming. It is mainly found in southern Senegal (Ziguinchor and Kolda regions), even if could be also found in Fatick and Saint-Louis regions. It is located all along streams and rivers.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

### 4AO-Sin - Open Trees temporarily flooded – Gonakie

#### Class Description:

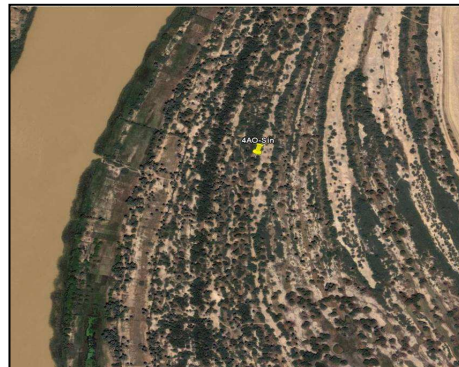
“*Open Trees temporarily flooded – Gonakie*” defines an *Acacia Nilotica* sp. woodland with open (15 – 65%) cover and generic height (3 - >30 m); it is flooded with fresh water from 2 to 4 months per year. It is located in the valley floor, along the rivers (on the banks) and it is locally known with the term “Gonakie”.

This class is present in the northern and eastern part of Senegal (Saint-Louis and Matam regions), inside the Senegal river basin.

Given that is not possible to determine the length of water permanence with a single satellite image, sometimes, in the geographic contest described above, this class could have been coded as terrestrial open woodland (2AO) or vice versa.



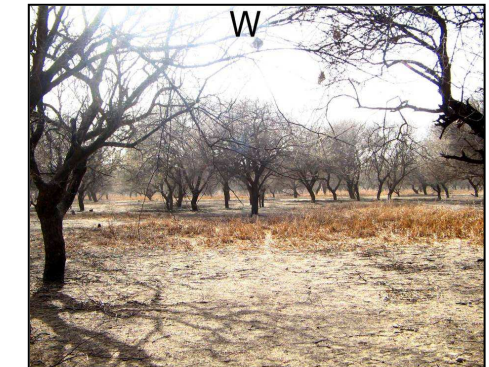
Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



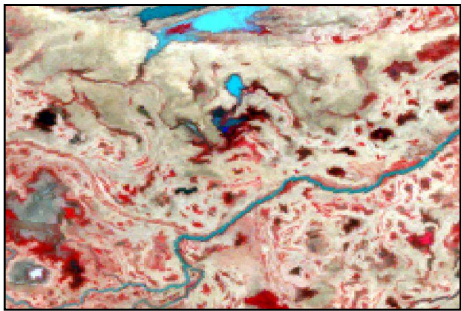
Field Photograph

## 4arOF-Sin - Closed to Open Shrubs temporarily flooded

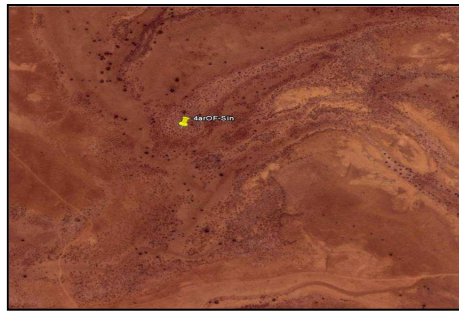
### Class Description:

“Closed to Open Shrubs temporarily flooded” defines shrubland with cover ranging from 15 to 100%, and medium height (0,5 - 5 m); it is flooded from 2 to 4 months per year. It is located in the valley floor, along the rivers and in the depressions.

This class is mainly present in the northern and eastern part of Senegal (Saint-Louis and Matam regions), inside the Senegal river basin. It is also present in the Fatick region's flooded areas. Given that is not possible to determine the length of water permanence with a single satellite image, sometimes, in the geographic contest described above, this class could have been coded as terrestrial open shrubland (2arO, 2arOAE, 2arTO, 2arTOAE) or vice versa.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



Field Photograph

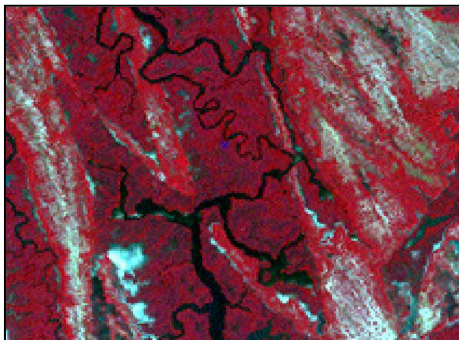
## 4arOF-Pin-s - Closed to Open Mangrove Shrubs

### Class Description:

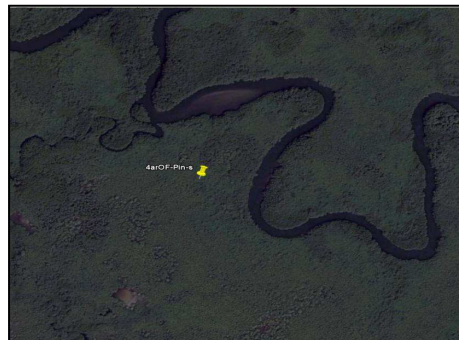
“Closed to Open Mangrove Shrubs” defines a layer of Rizophora sp. shrubs with cover ranging from 40 to 100%, and general height (0,3 - 5 m); it is flooded in permanence (more than 4 months per year) with brackish water, having a daily variation. It is located in delta environment.

This class is found only in the delta of:

- Saloum river (Fatick region);
- Casamance river (Ziguinchor region );
- Senegal river (Saint-Louis region).



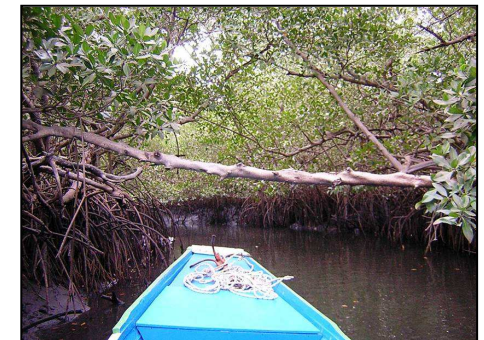
Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



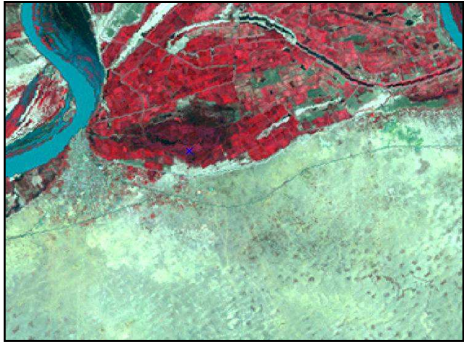
Field Photograph

## 4HF-Pin - Closed Herbaceous vegetation permanently flooded

### Class Description:

“Closed Herbaceous vegetation permanently flooded” defines a layer of tall (0,8 - 3 m) herbaceous vegetation with closed (> 65%) cover; it is flooded with fresh water for more than 4 months per year. It is located in the valley floor, along lake or river banks and in the depressions.

This class is present in the northern and eastern part of Senegal (Saint-Louis, Louga and Matam regions), inside the Senegal river basin. It is also present in the flooded areas of the Fatick region.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



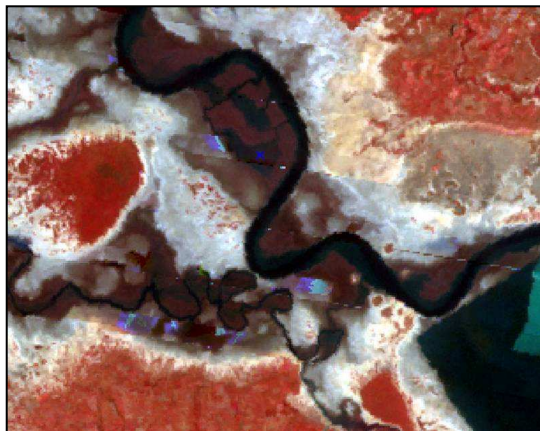
Field Photograph

## 4HOF-Pin-s - Closed to Open Herbaceous vegetation permanently flooded with brackish water

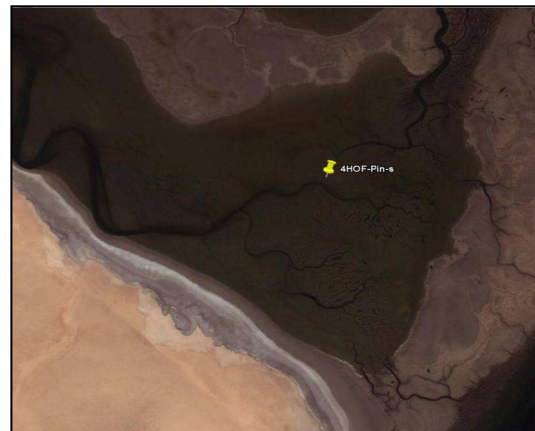
### Class Description:

“Closed to Open Herbaceous vegetation permanently flooded with brackish water” defines a layer of halophilic herbaceous vegetation with closed to open (40 - 100%) cover and generic height (0,03 – 3 m); it is flooded with brackish water for more than 4 months per year. It is located in delta environment.

This class is present in western Senegal (Fatick and Kaolack regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

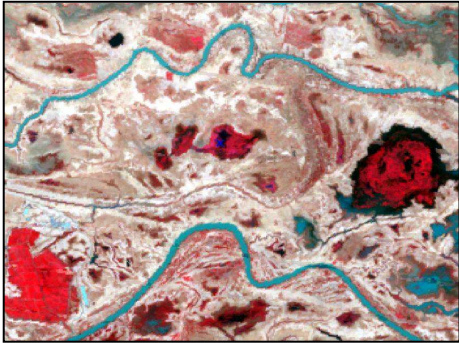


Aerial Photograph

## 4HOF-Sin - Closed to Open Herbaceous vegetation temporarily flooded

### Class Description:

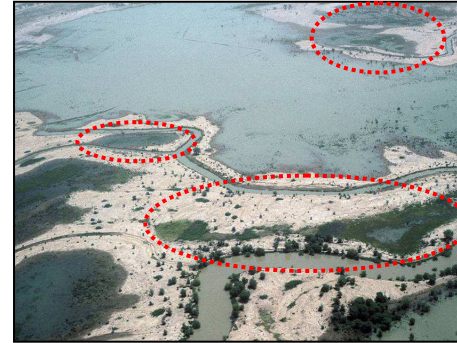
“Closed to Open Herbaceous vegetation temporarily flooded” defines a layer of herbaceous vegetation with closed to open (40 - 100%) cover and generic height (0,03 – 3 m); it is flooded with fresh water from 2 to 4 months per year. It is located in flat areas of valley floor geomorphologic context. This class is mainly present in northern and north-western Senegal, inside the Senegal river basin (Saint-Louis and Matam regions), but it occurs also in the other wet areas of the country.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

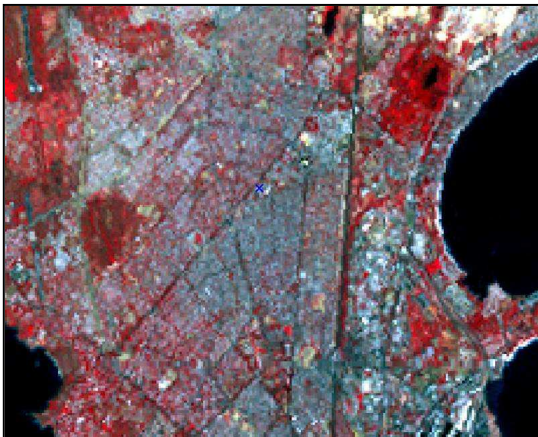


Field Photograph

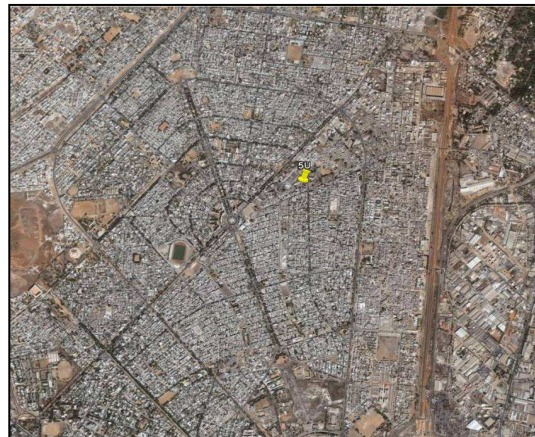
## 5U - Urban Area(s)

### Class Description:

“Urban Area(s)” defines a non linear built up area covered by impervious structures adjacent to or connected by streets. This cover is related to centers of population. *Linear* elements like (main) roads, railways and communication lines/pipelines occur but are not a dominant features. It refers to all the cities and towns of Senegal.



Landsat ETM (423 RGB composit)

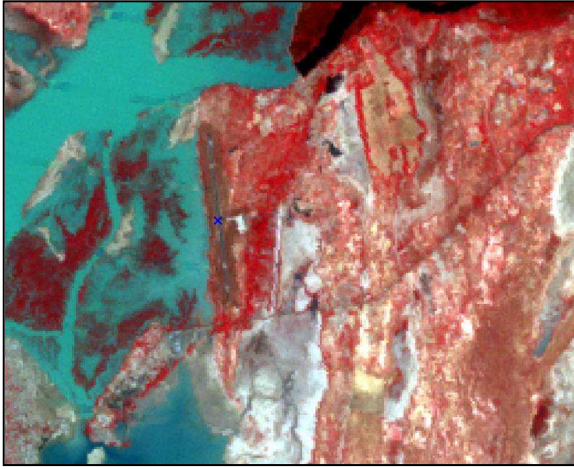


Google Earth High Resolution image



Aerial Photograph

## 5AE - Airport



Landsat ETM (423 RGB composit)

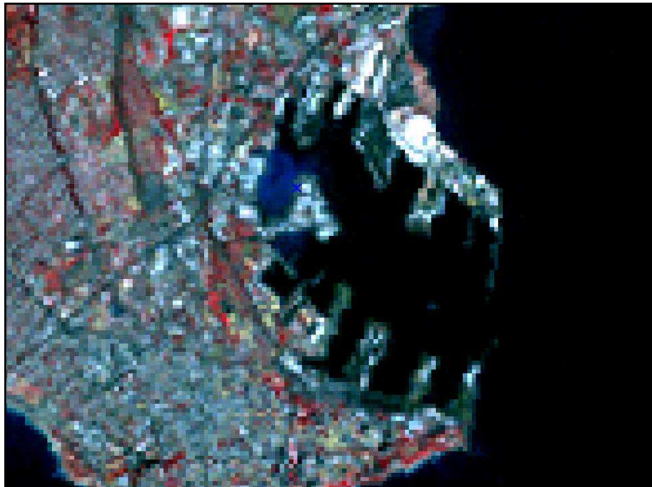


Google Earth High Resolution image

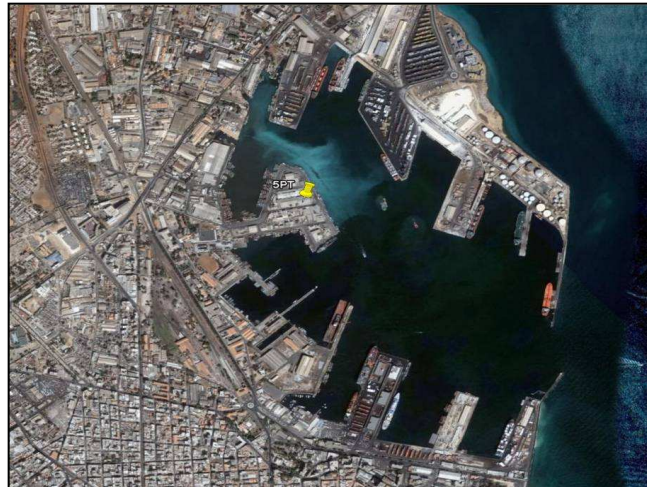


Aerial Photograph

## 5PT - Port



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

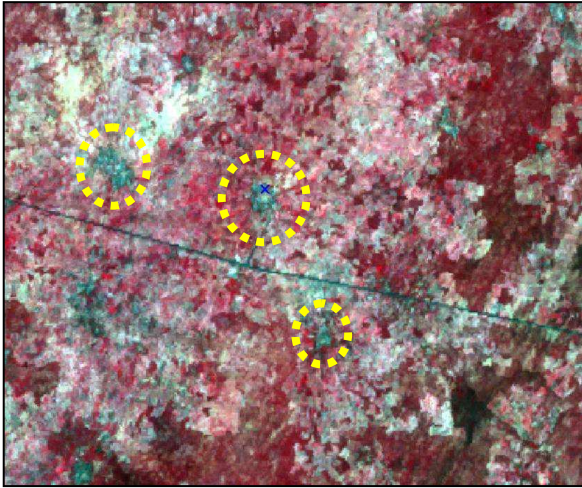


Aerial Photograph

## 5U-ru - Rural Settlements

### Class Description:

“Rural Settlements” defines a non linear built up area. It refers to the villages in the rural area of Senegal.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

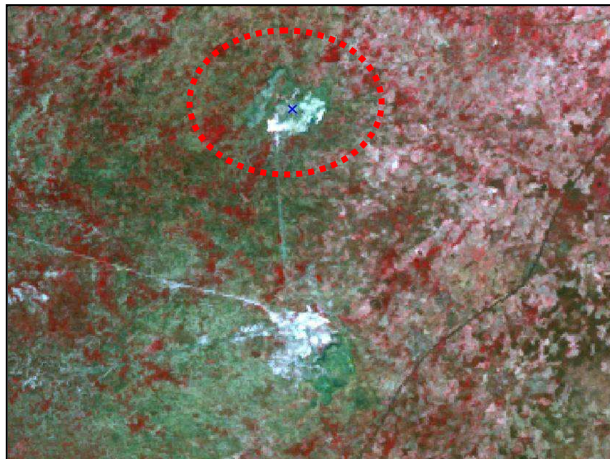


Aerial Photograph

## 5M - Mines and Quarries

### Class Description:

“Mines and Quarries” refers to all the extraction sites of Senegal.



Landsat ETM (423 RGB composit)

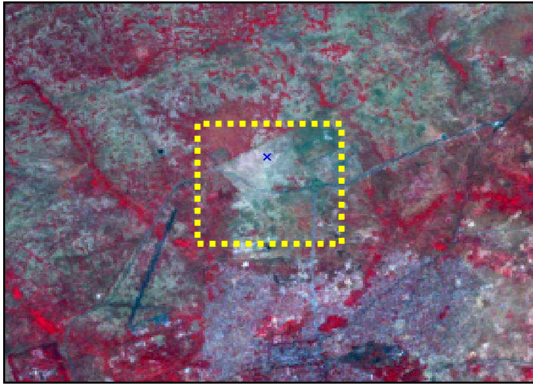


Google Earth High Resolution image

## 6SN - Bare Soil

### Class Description:

“Bare Soil” refers to any bare soil and/or unconsolidated material.



*Landsat ETM (423 RGB composite)*



*Google Earth High Resolution image*

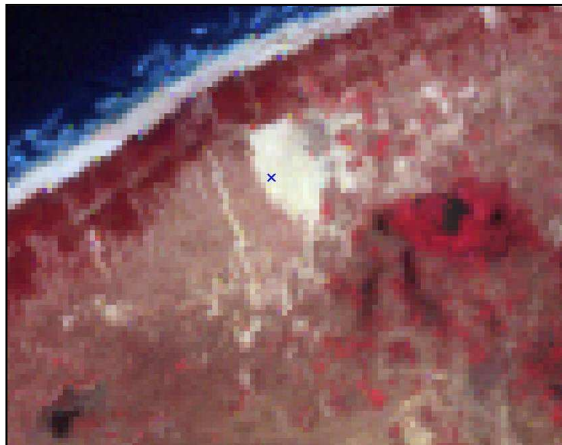


*Field Photograph*

## 6S - Sand

### Class Description:

“Sand” occurs mainly along the coastal area and in northern Senegal (Saint-Louis and Louga regions). This class is often associated to Mare environment.



*Landsat ETM (423 RGB composite)*



*Google Earth High Resolution image*

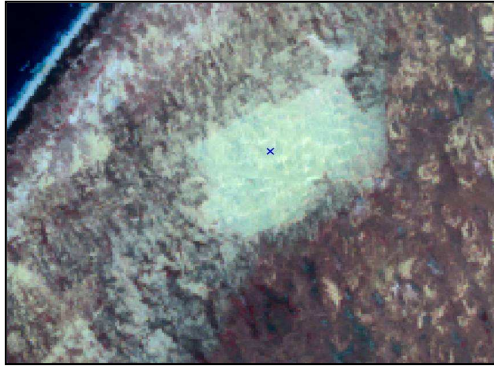


*Aerial Photograph*

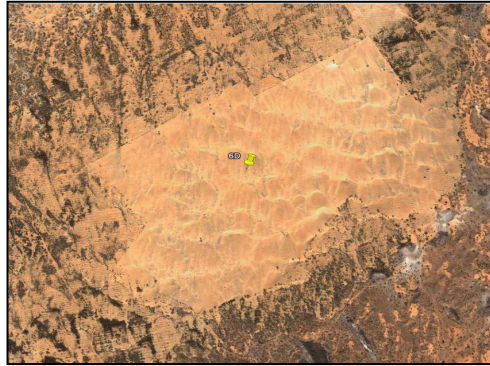
## 6D - Sand Dunes

### Class Description:

“Sand Dunes” define loose and shifting sand moved by the wind and occur rarely only along the coastal area of Dakar, Thies and Louga regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

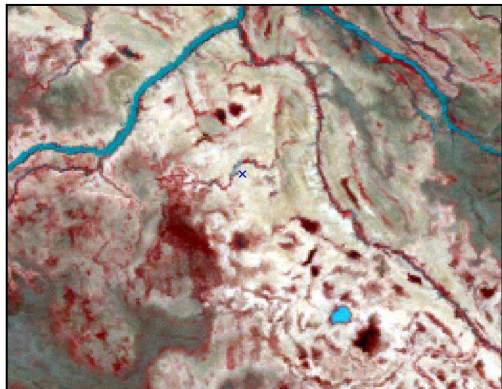


Field Photograph

## 6S-Er - Bare Soil affected by Water Erosion

### Class Description:

“Bare Soil affected by Water Erosion ” defines bare soil and/or unconsolidated material resulting from a water erosion process. Scattered (cover < 4%) vegetation may be present. The life forms composing this type of vegetation can be any life form and, due to their scattered distribution, it is difficult to further specify them. It occurs mainly in northern and north eastern Senegal, inside the Senegal river basin and along rivers and streams of Saint-Louis, Matam, Kaolack and Tambacounda regions.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

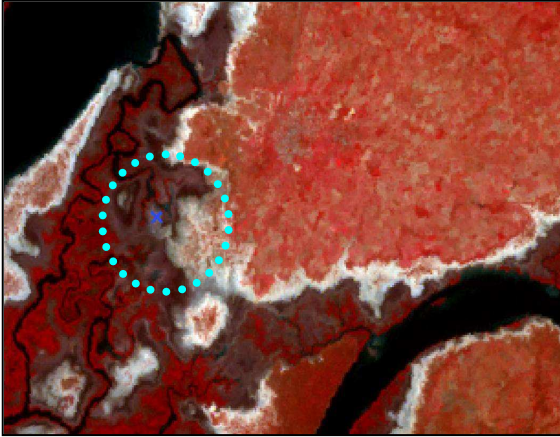


Field Photograph

## 7S - Salt Extraction

### Class Description:

“Salt Extraction” is defined as an artificial waterbody of very saline shallow water whose persistence is more than 9 months per year. When water is not present, the surface is salt. This class occurs in the Saloum delta area, (Fatick and Kaolack regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

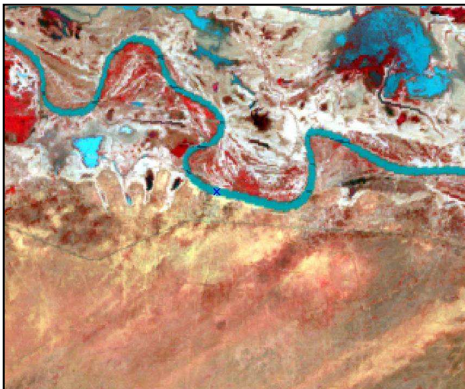


Aerial Photograph

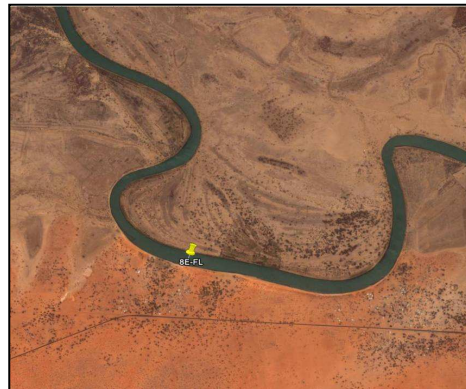
## 8E-FL - River

### Class Description:

“River” defines flowing fresh water whose persistence is more than 9 months per year. This class is found all over Senegal.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

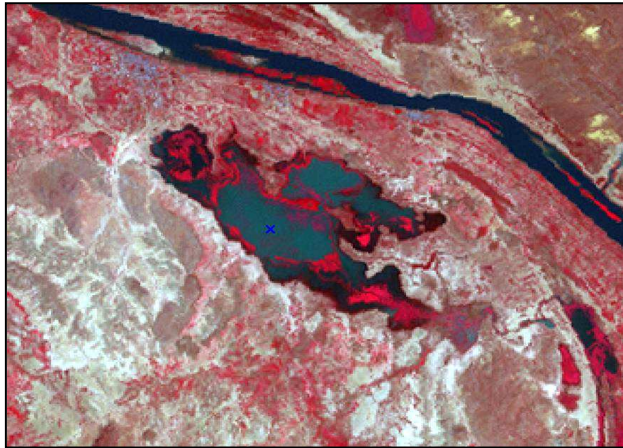


Field Photograph

## 8E-LP - Lake

### Class Description:

“Lake” defines standing fresh water whose persistence is more than 9 months per year. This class is found all over Senegal.



Landsat ETM (423 RGB composit)

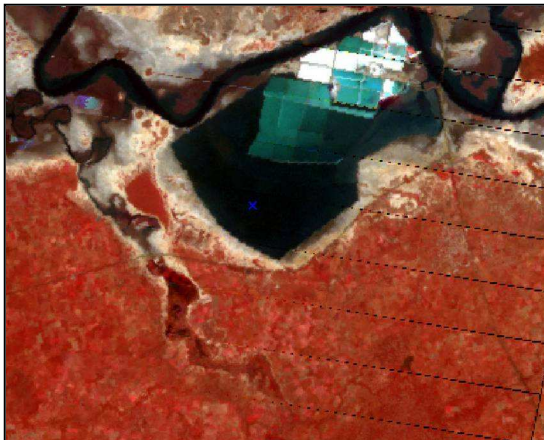


Google Earth High Resolution image

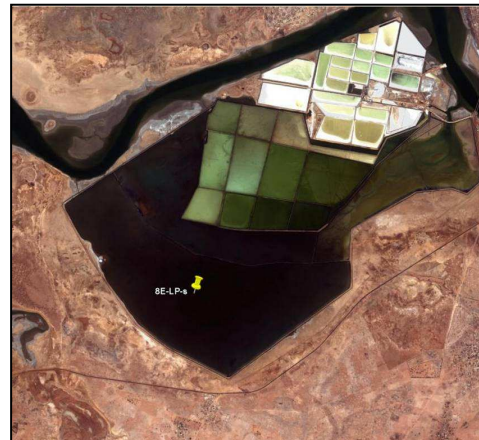
## 8E-LP-s - Salty Lake

### Class Description:

“Salty Lake” defines standing saline water whose persistence is more than 9 months per year. This class occurs in western Senegal.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

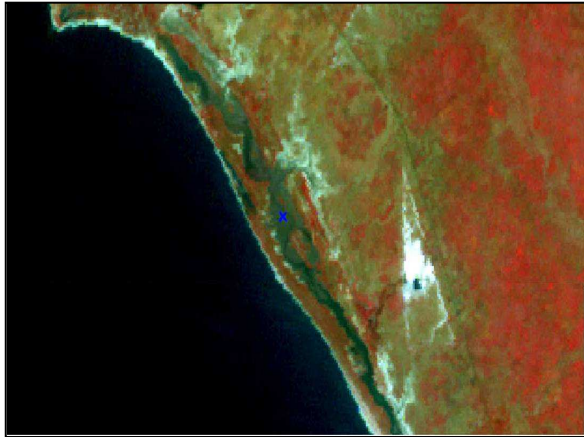


Aerial Photograph

## 8E-Sin-s - Non Perennial Salty Lakes

### Class Description:

“Non Perennial Salty Lakes” defines standing saline water whose persistence is less than 9 months per year. When water is not present, the surface is sand. This class occurs rarely along the coastal area, in western Senegal (Thies region).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

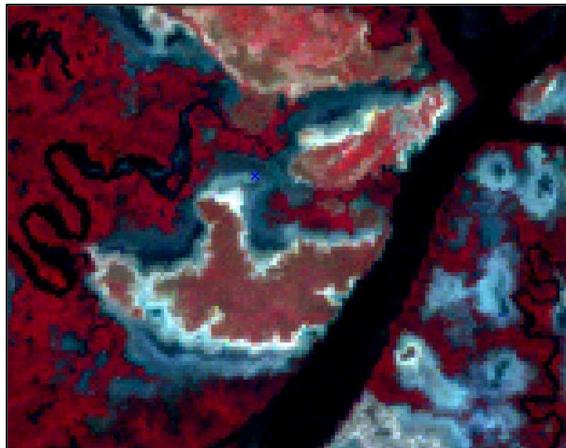


Aerial Photograph

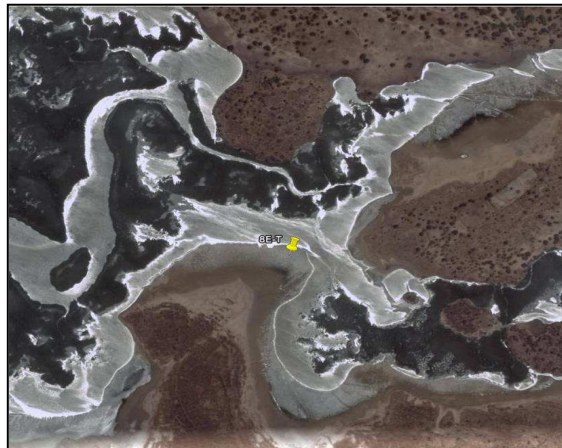
## 8E-T - Tidal Area

### Class Description:

“Tidal Area” defines a bare soil affected by a regular rise and fall in the level of the sea. This class occurs principally in the delta environments of western Senegal (Saint-Louis, Fatick and Ziguinchor regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image

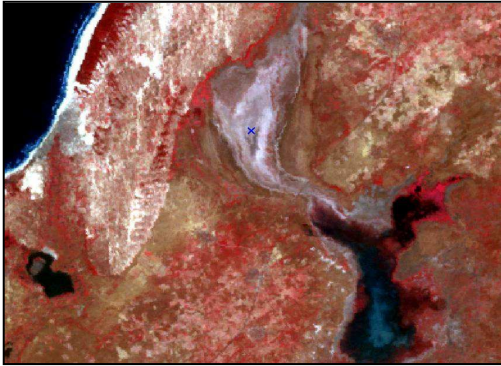


Aerial Photograph

## 8SN - Bare Soil temporarily flooded

### Class Description:

“Bare Soil temporarily flooded” defines a bare soil periodically affected by floods; the water persistence ranges from 1 to 3 months per year. This class occurs principally both in the delta areas and inside the Senegal river basin.



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph



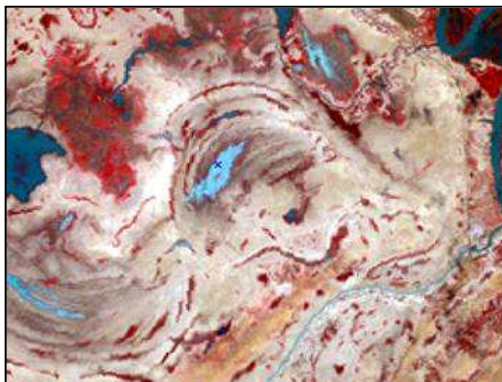
Field Photograph

## 8SN//4arHE - Bare Soil OR Sparse Shrubs and Herbaceous vegetation in temporarily flooded area

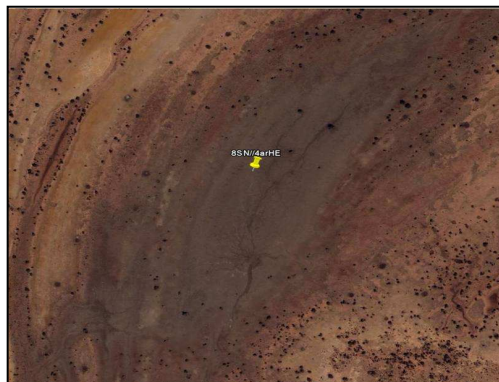
### Class Description:

“Bare Soil OR Sparse Shrubs and Herbaceous vegetation in temporarily flooded area” defines an area affected by floods of fresh water, where the water persistence ranges 2 to 4 months per year. The cover could be either bare soil, or sparse (1 - 15%) shrubs with a layer of sparse (5 – 15%) herbaceous vegetation.

This class was used whenever it was not possible to distinguish between the two classes described above. It occurs principally in northern Senegal inside the basin of Senegal river (Saint-Louis, Matam and Tambacounda regions).



Landsat ETM (423 RGB composit)



Google Earth High Resolution image



Aerial Photograph

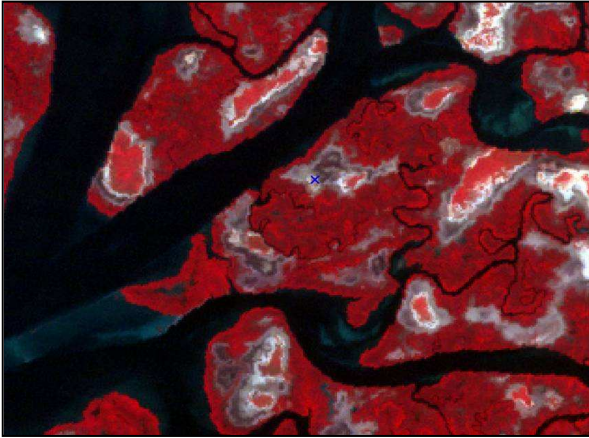


Field Photograph

## 8SN//4arHE-s - Bare Soil OR Sparse Shrubs and Herbaceous vegetation in temporarily flooded area – Brackish water

### Class Description:

“Bare Soil OR Sparse Shrubs and Herbaceous vegetation in temporarily flooded area – Brackish water” defines an area affected by floods of salty water, where the water persistence ranges 2 to 4 months per year. The cover could be either sand, or sparse (1 - 15%) shrubs with a layer of sparse (5 – 15%) herbaceous vegetation. This class was used whenever it was not possible to distinguish between the two classes described above. It occurs principally in the delta environments of western Senegal (Saint-Louis, Fatick and Ziguinchor regions).



*Landsat ETM (423 RGB composit)*



*Google Earth High Resolution image*



*Aerial Photograph*