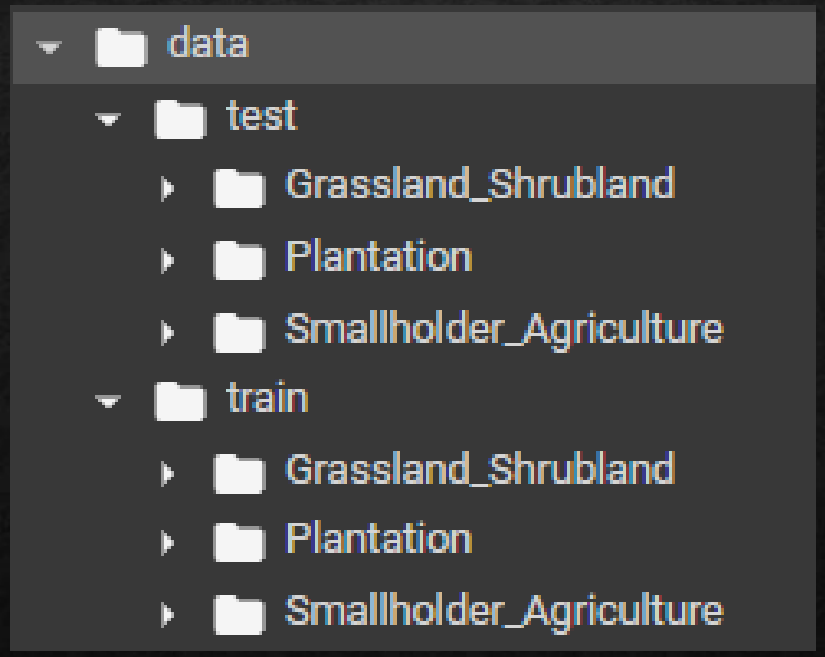
INCEPTION RESNET ZERO DEFORESTATION

1. The training and test dataset is imported, the dataset is also reorganized to use generators.



Cesar Supo

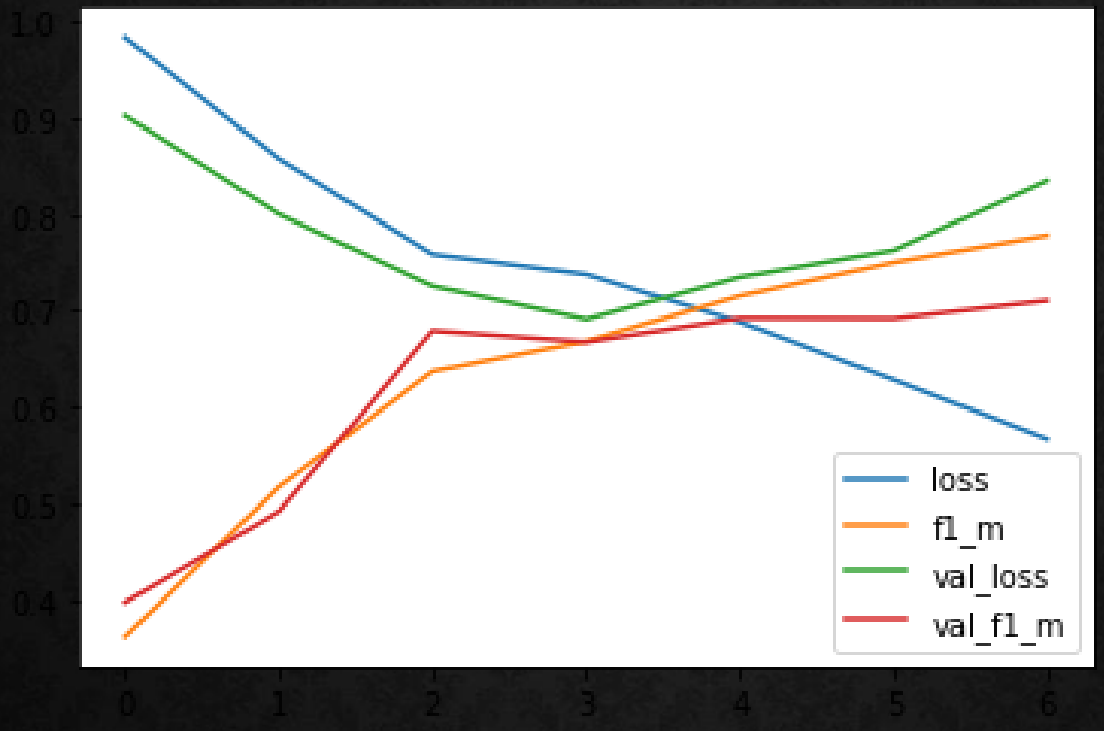
2. I use generators so as not to overload the RAM, in addition to resizing the images to 256x256

```
image_generator = ImageDataGenerator(rescale=1./255, validation_split=0.2)

train_generator = image_generator.flow_from_directory(
    "data/train", batch_size=50, shuffle=True,
    target_size=(256, 256), class_mode="categorical", subset="training"
)

test_generator = image_generator.flow_from_directory(
    "data/train", batch_size=50, shuffle=True,
    target_size=(256, 256), class_mode="categorical", subset="validation"
)
```

Transfer learning: I use InceptionResNetV2 locking all but the last 100 layers for retraining.

```
from tensorflow.keras.applications import InceptionResNetV2
basemodel = InceptionResNetV2(
    weights="imagenet",
    include_top=False,
    input_tensor=Input(shape=(256, 256, 3))
)
```

Finally I get a model with 0.7 F1-macro accuracy.




```
85/85 [==============================] - 5s 58ms/step - loss: 0.8363 - f1_m: 0.7080
Precision en la fase Test: 0.70798319578170778
```