



**REDDiness**  
Support C-Africa in EO driven forest monitoring for REDD

## Le suivi du couvert végétal des forêts gabonaises par télédétection

### FORMATION EN TELEDETECTION : APPLICATIONS

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**U O B**  
UNIVERSITE OMAR BONGO



**LAGRAC**  
LABORATOIRE DE GRAPHIQUE  
ET DE CARTOGRAPHIE



UNIVERSITY OF TWENTE

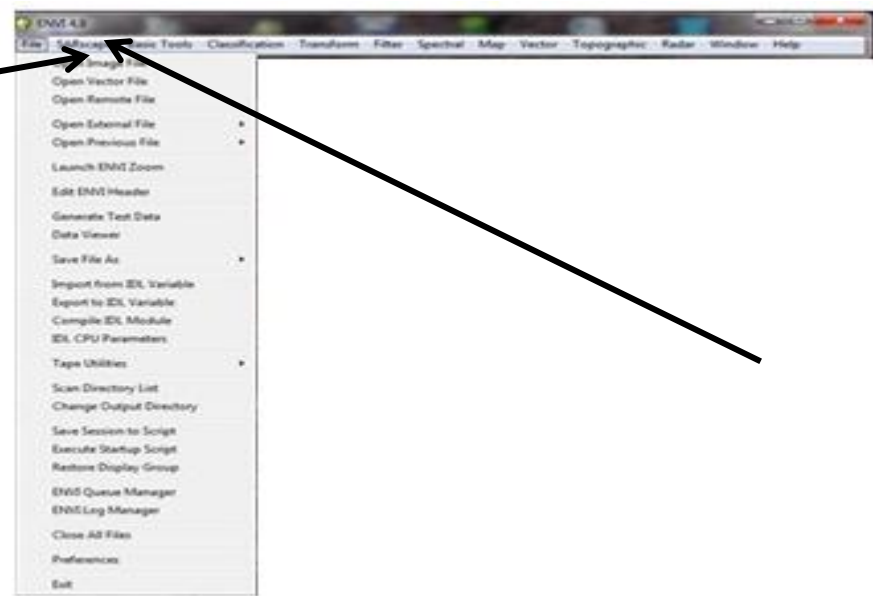
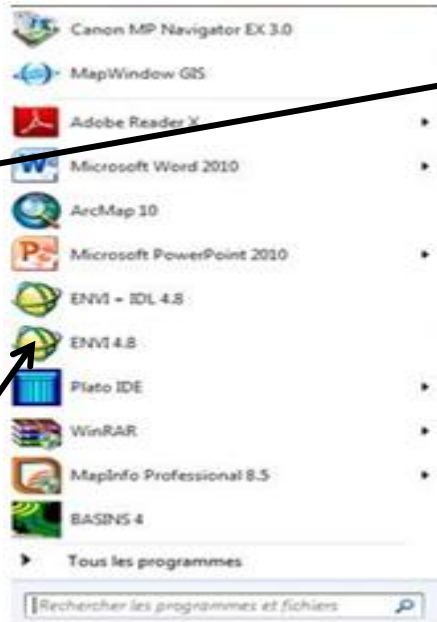


# Calcul des Isodata et K-means

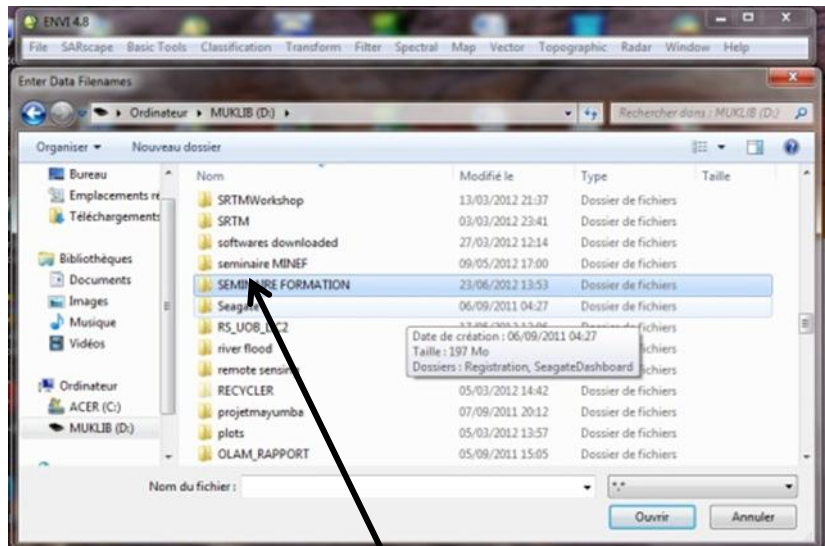
Menu ENVI  
sélectionner

File

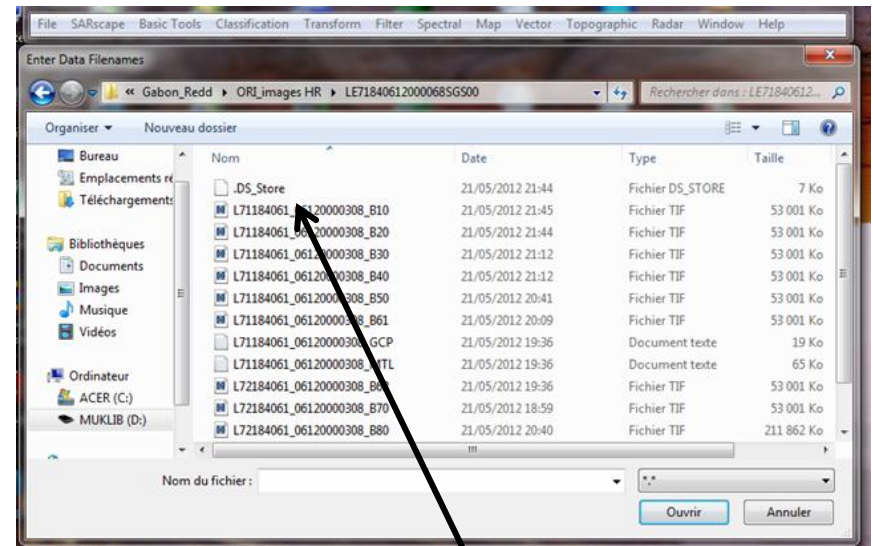
Appuyez sur  
Démarrer  
sélectionner  
ENVI



u ENVI  
tionner  
mage file

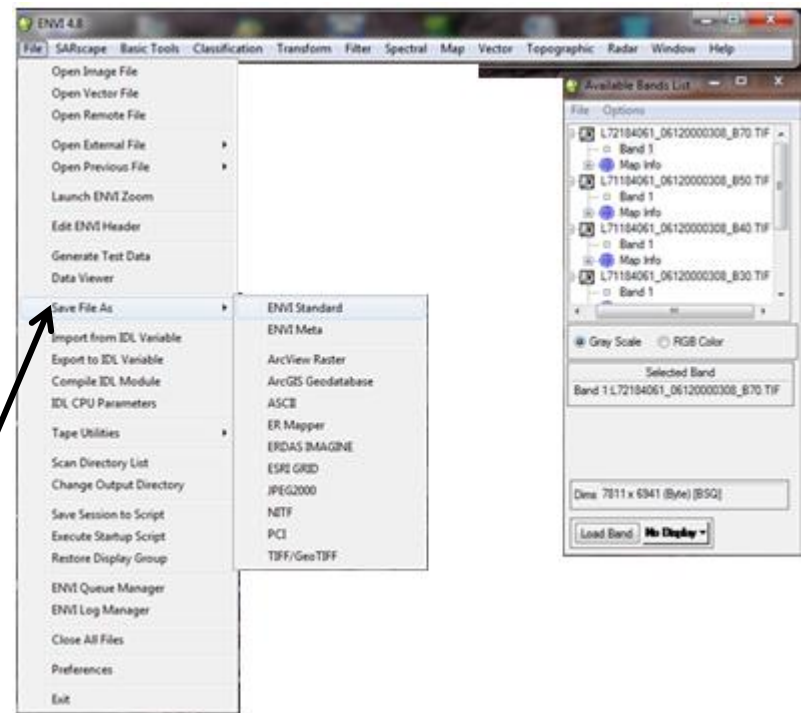
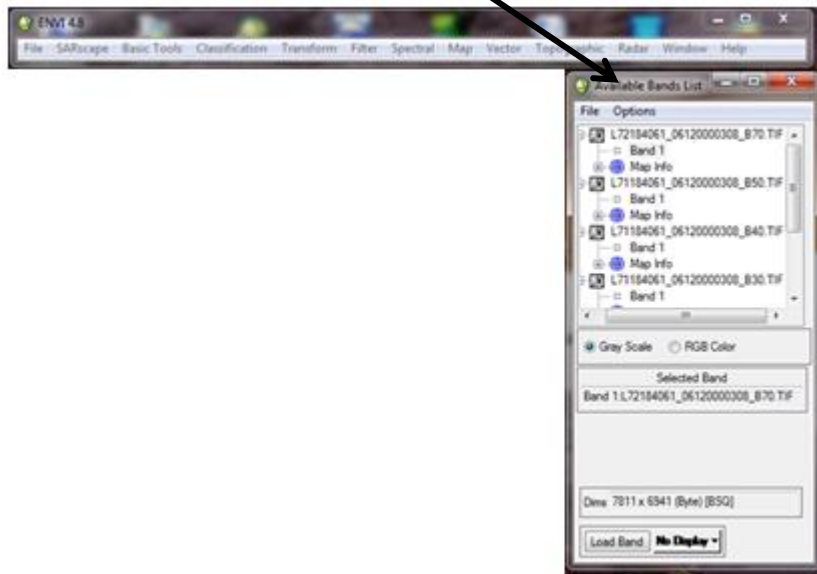


Ouvrir le dossier

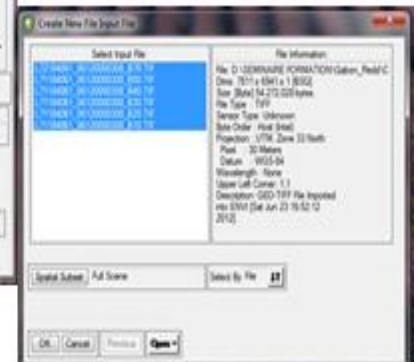
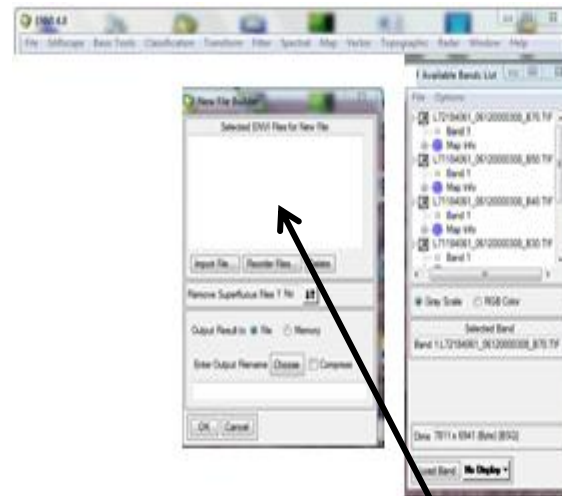
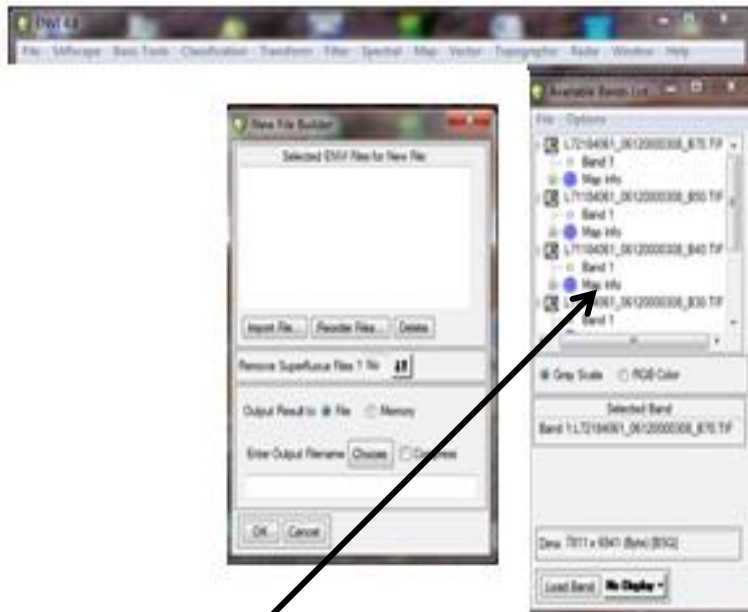


Sélectionner les bandes(1-5 et 7)

Ouvrir les bandes et les voir en Available Band List

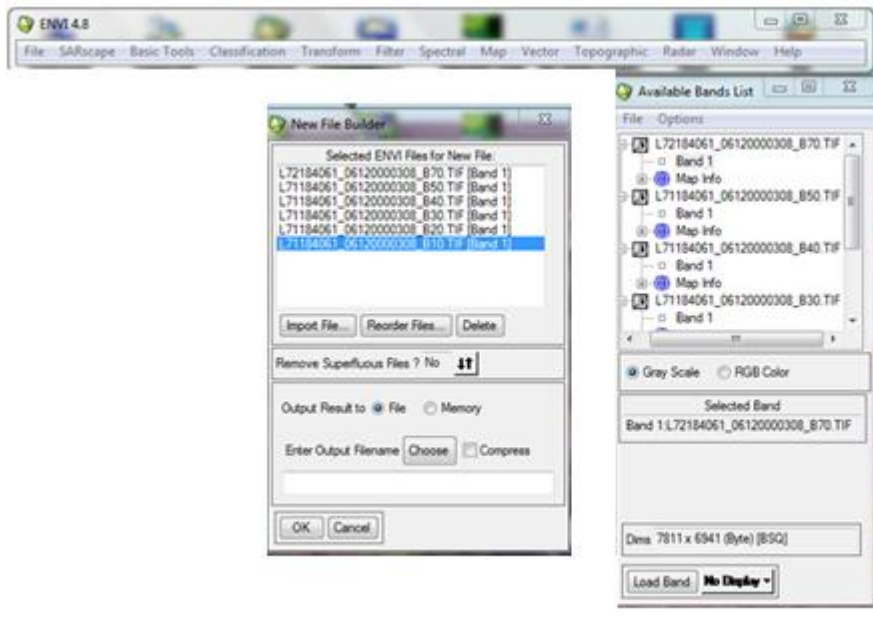


Sélectionner file puis save as envi standard

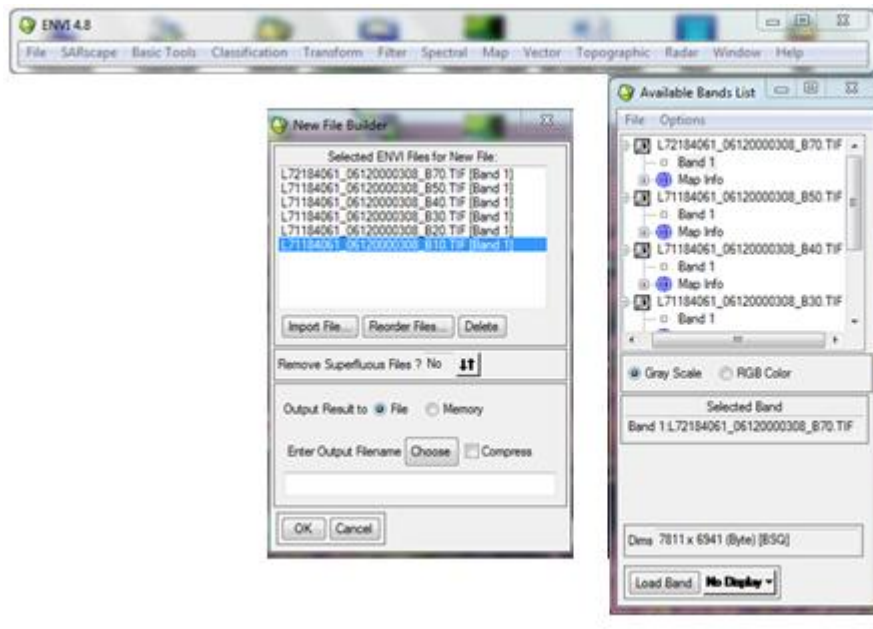
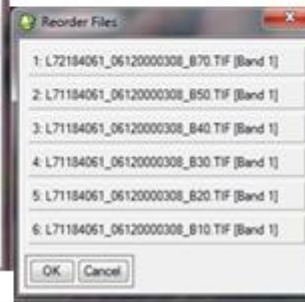


Sélectionner les bandes

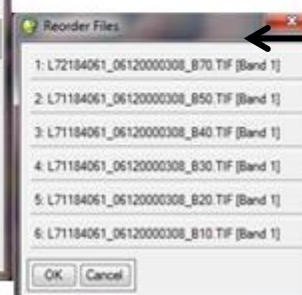
grouper les bandes



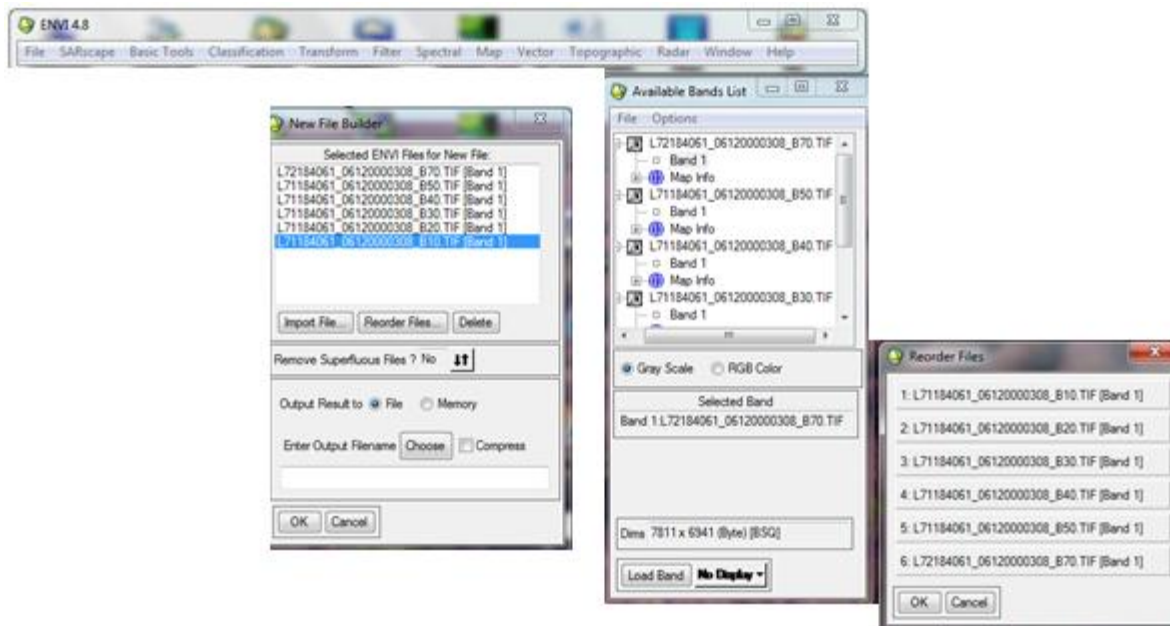
← Ordonner les bandes



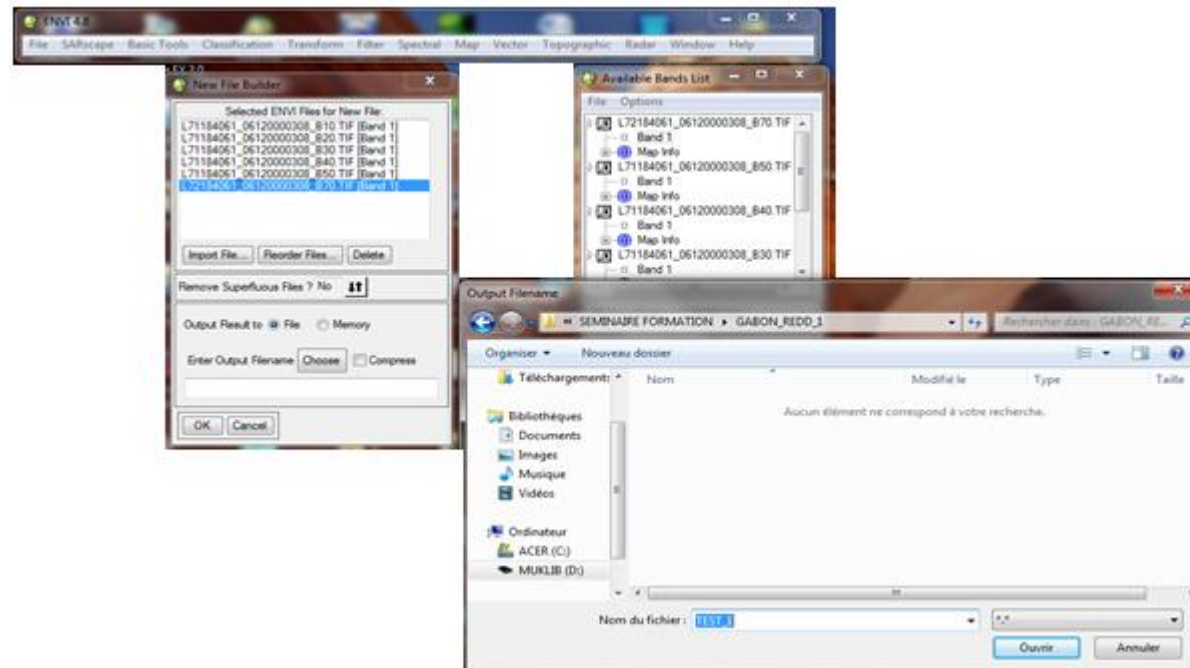
← Ordonner les bandes et  
Sauvegarder les dans un dossier



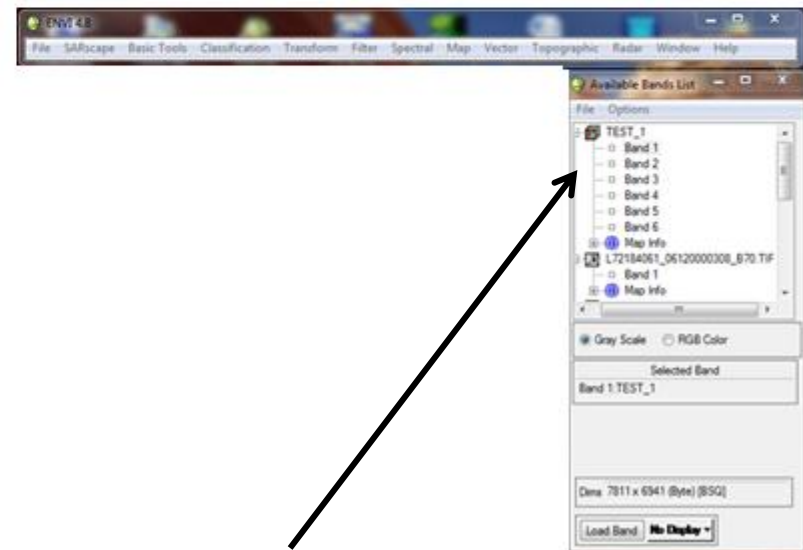
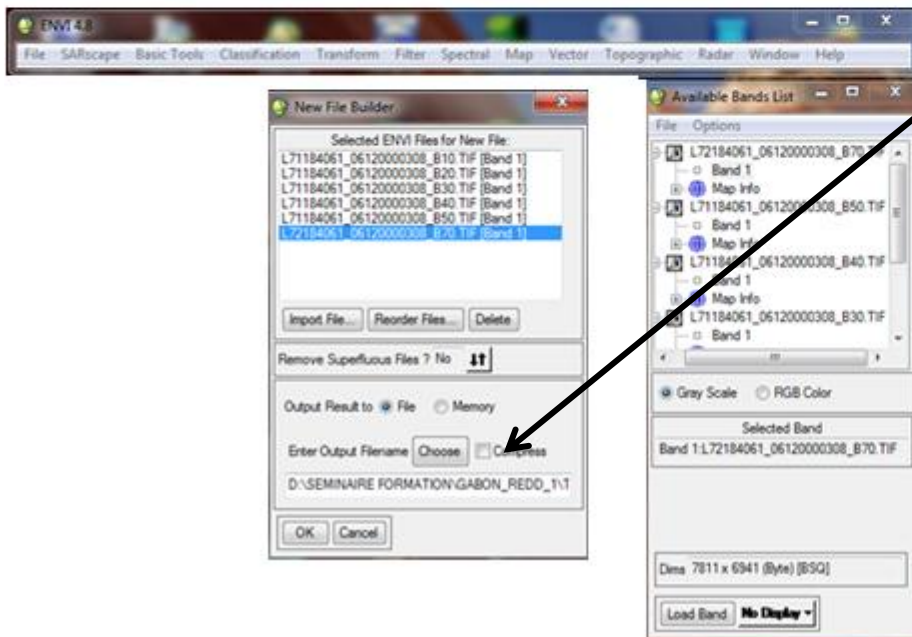
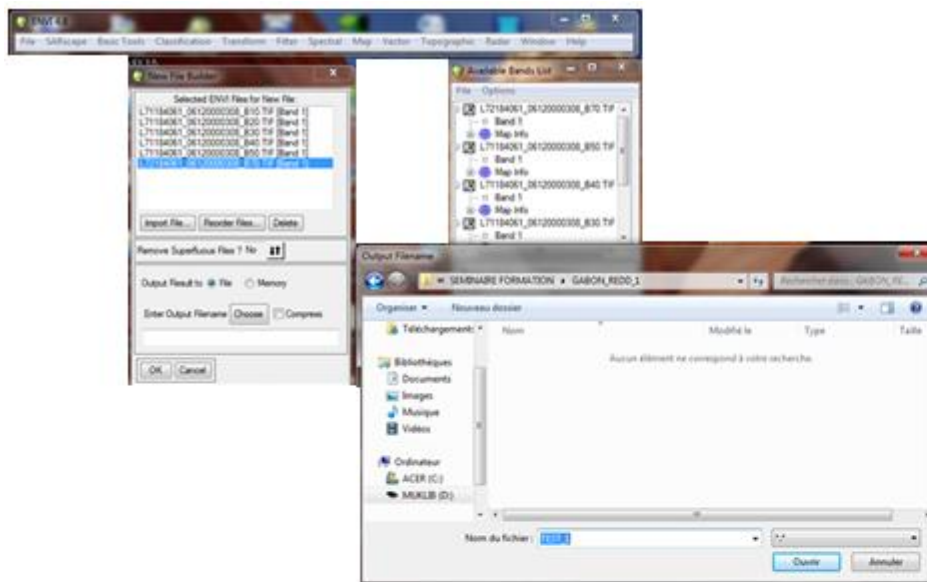




Ordonner les bandes et  
Sauvegarder les dans un dossier

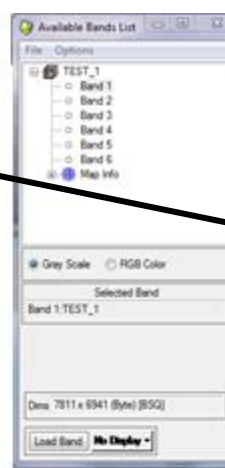
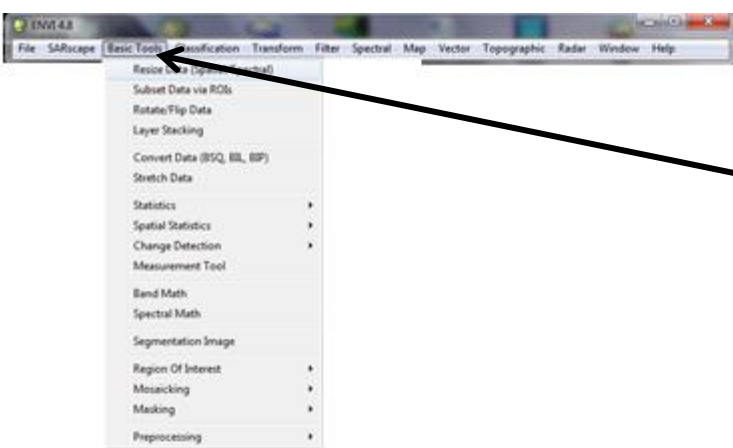


Sauvegarder les données

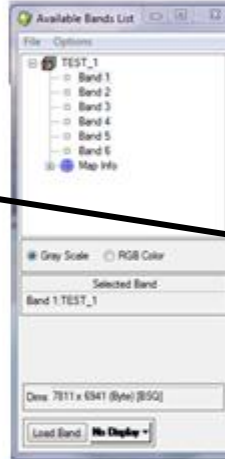


Enregistrement bande par bande

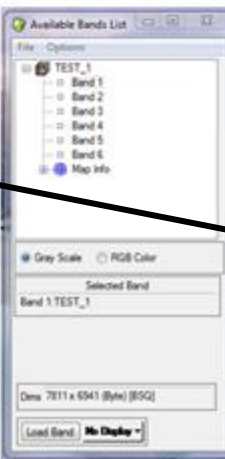
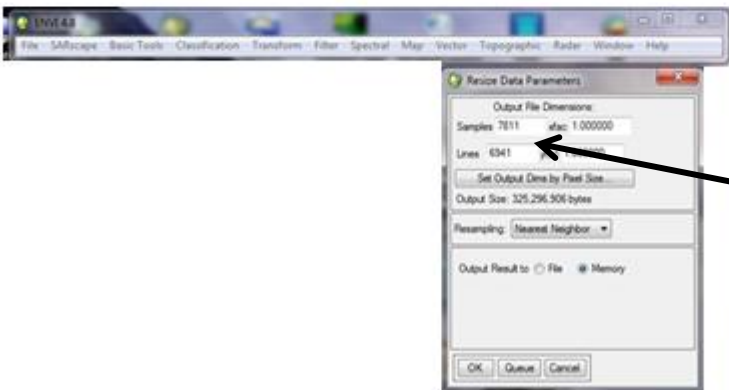
Liste de la pile de bandes



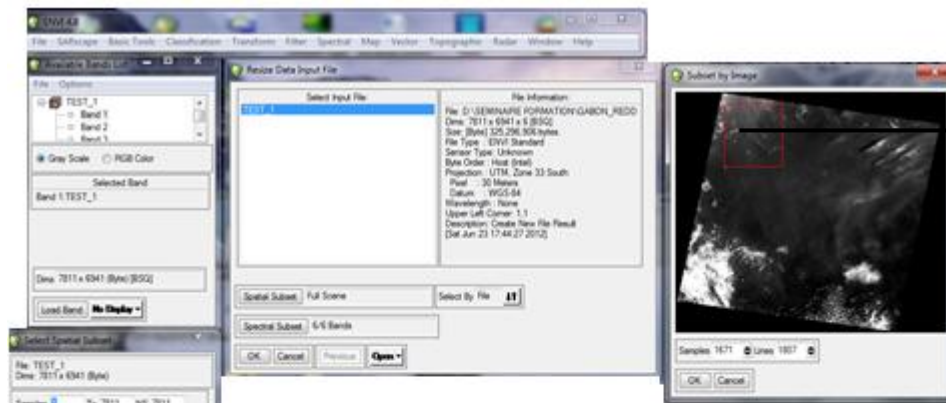
Delimiter la zone d'étude  
Avec basic tools puis resize data



Delimiter la zone d'étude  
Avec basic tools puis resize data



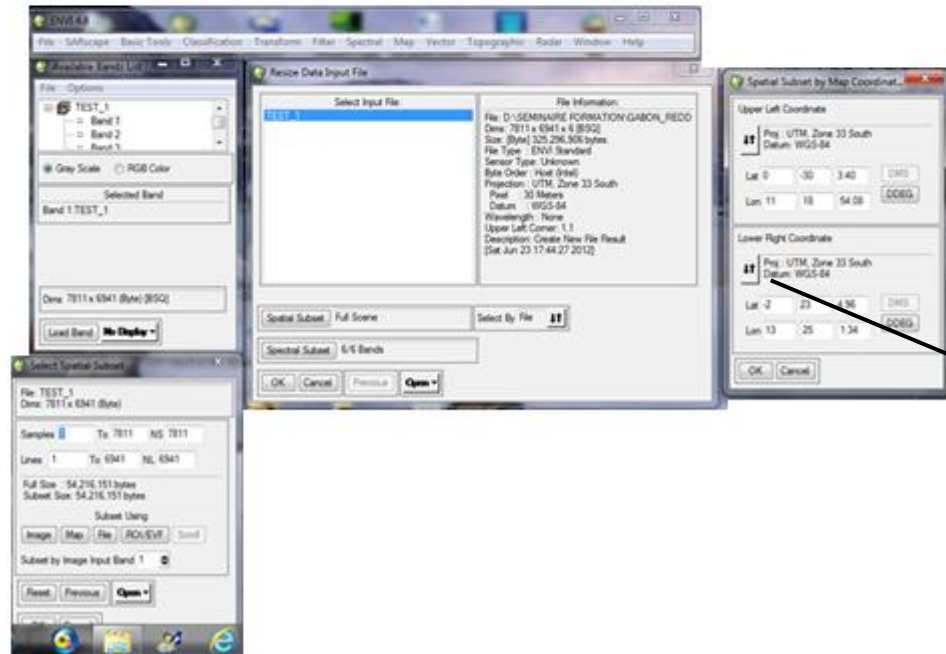
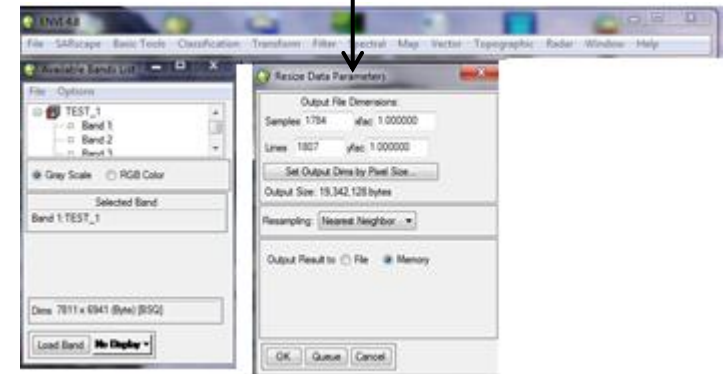
Dimensions de la zone délimiter



Delimiter la zone d'étude par image

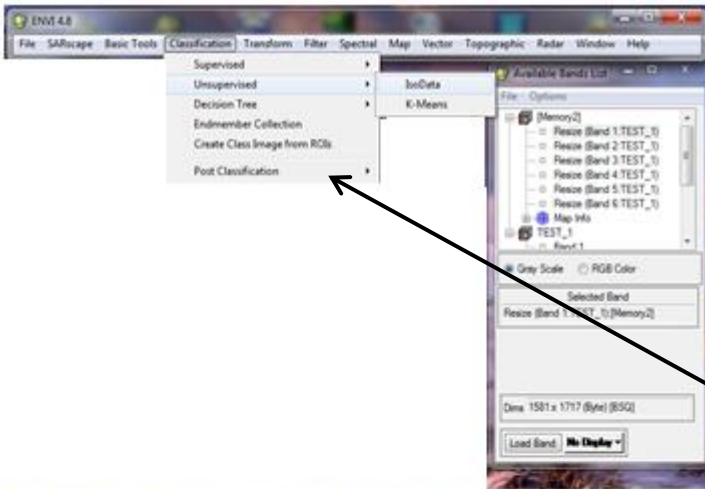


Dimension de la zone à étudier

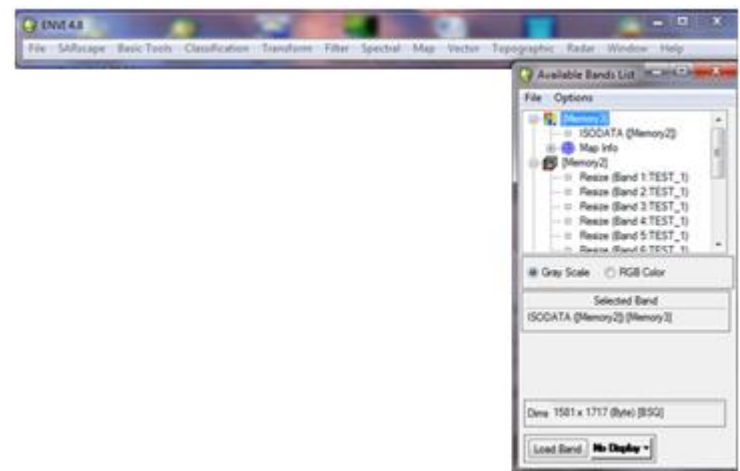


Delimiter la zone d'étude par les coordonnées géographiques

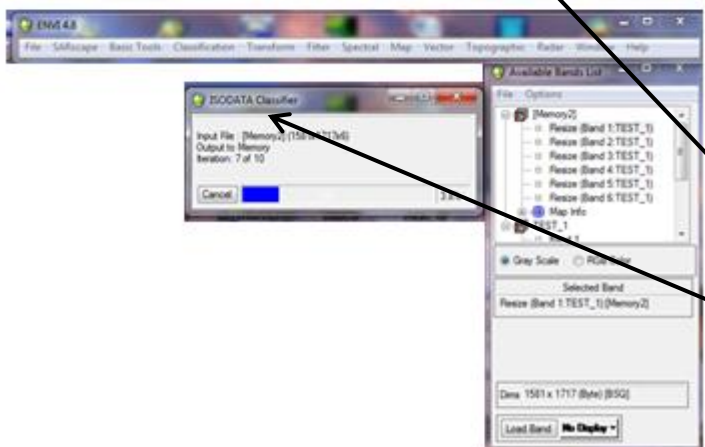
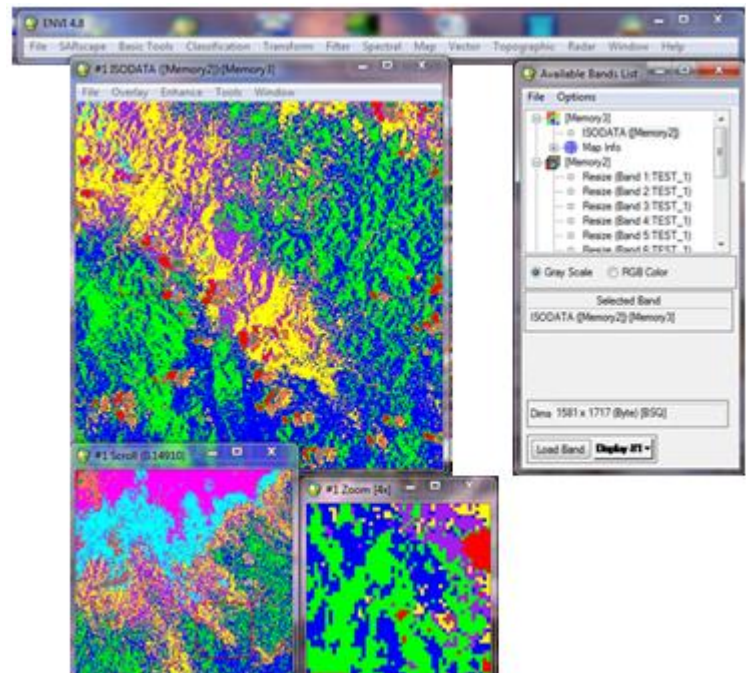
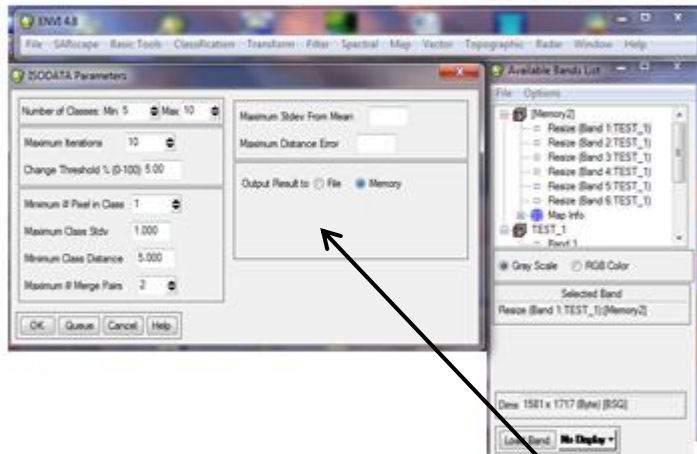




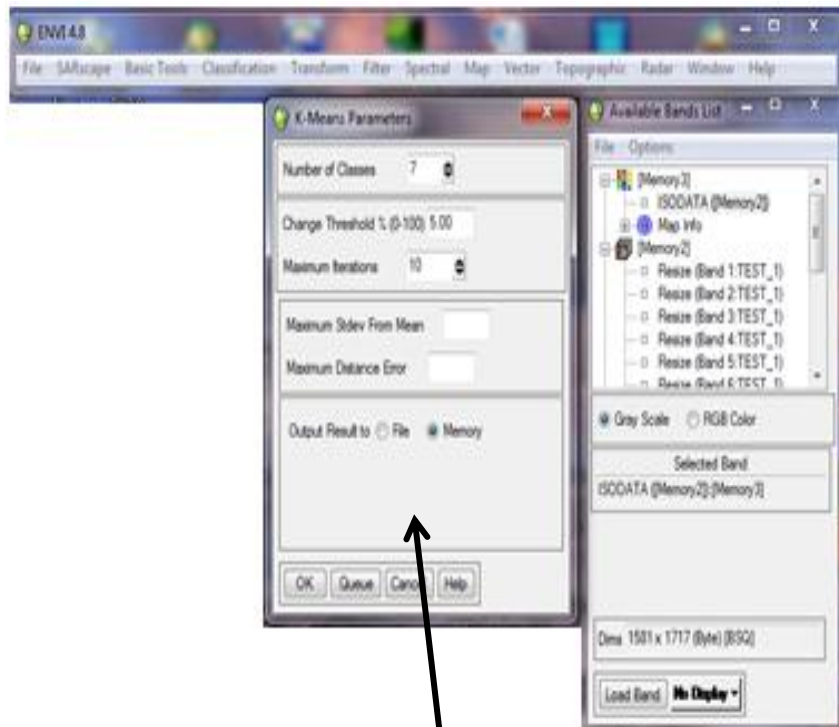
Classification par Isodata



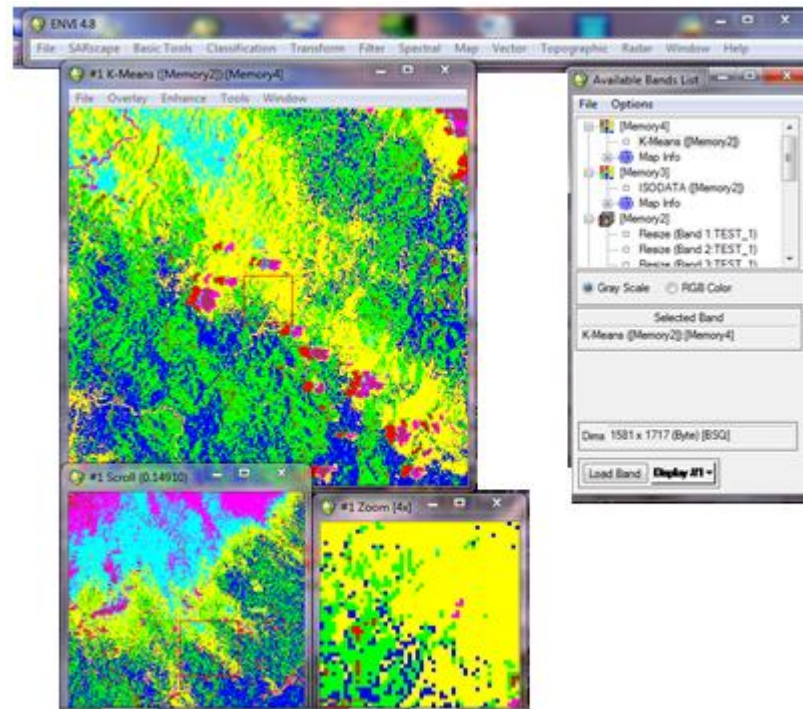
Résultats de IsoData



Paramètres et iterations



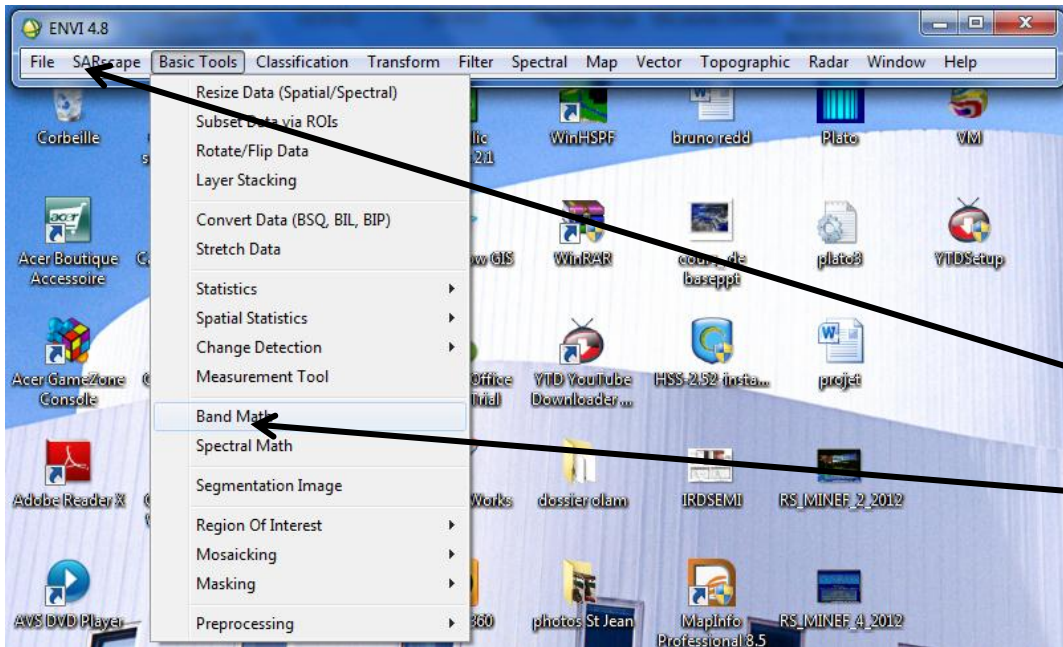
Paramètres et iterations



Résultats de K\_means

# Calcul des indices de végétation

## Cas NDVI



Basic tools

Band Math

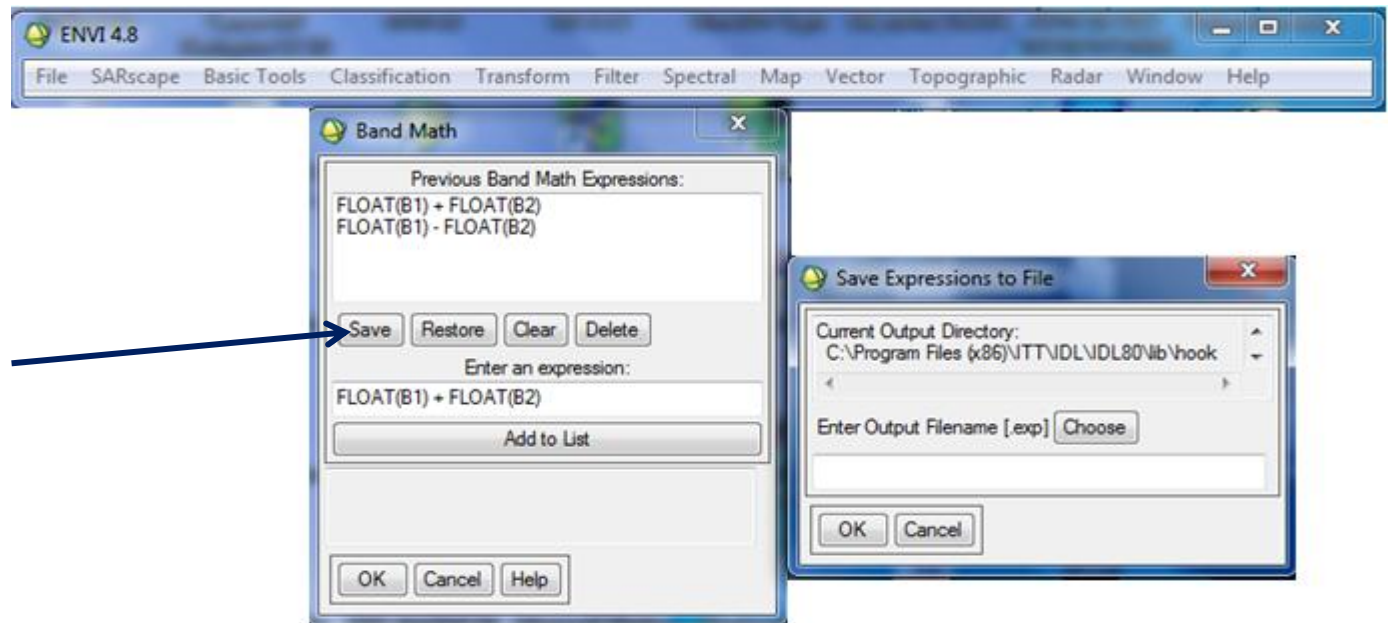


Expression mathématique  
(TM4-TM3)/(TM4+TM3)

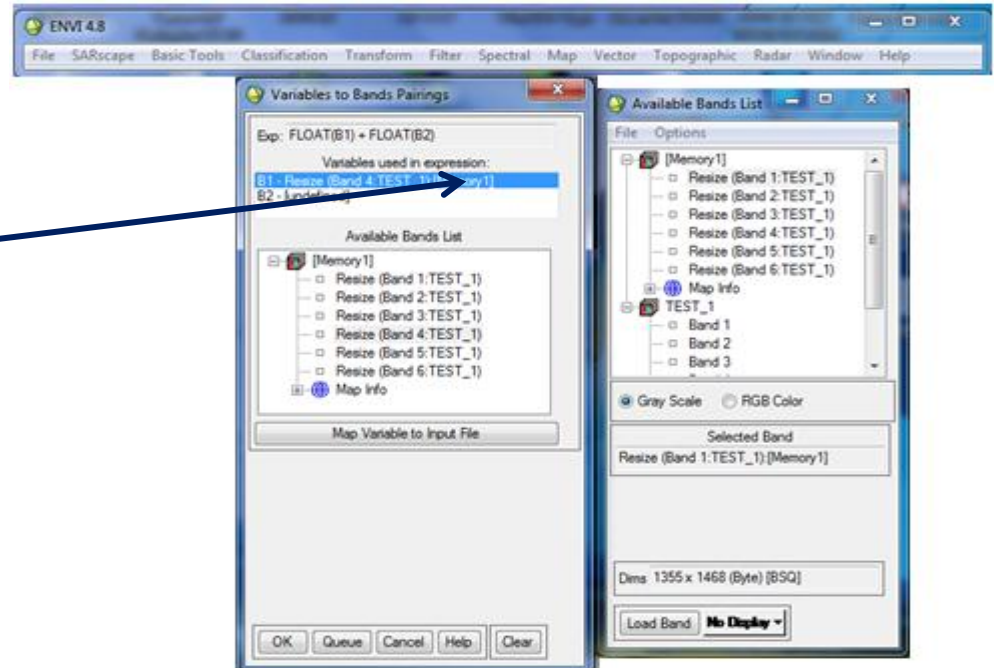
Entrez le numérateur et dénominateur



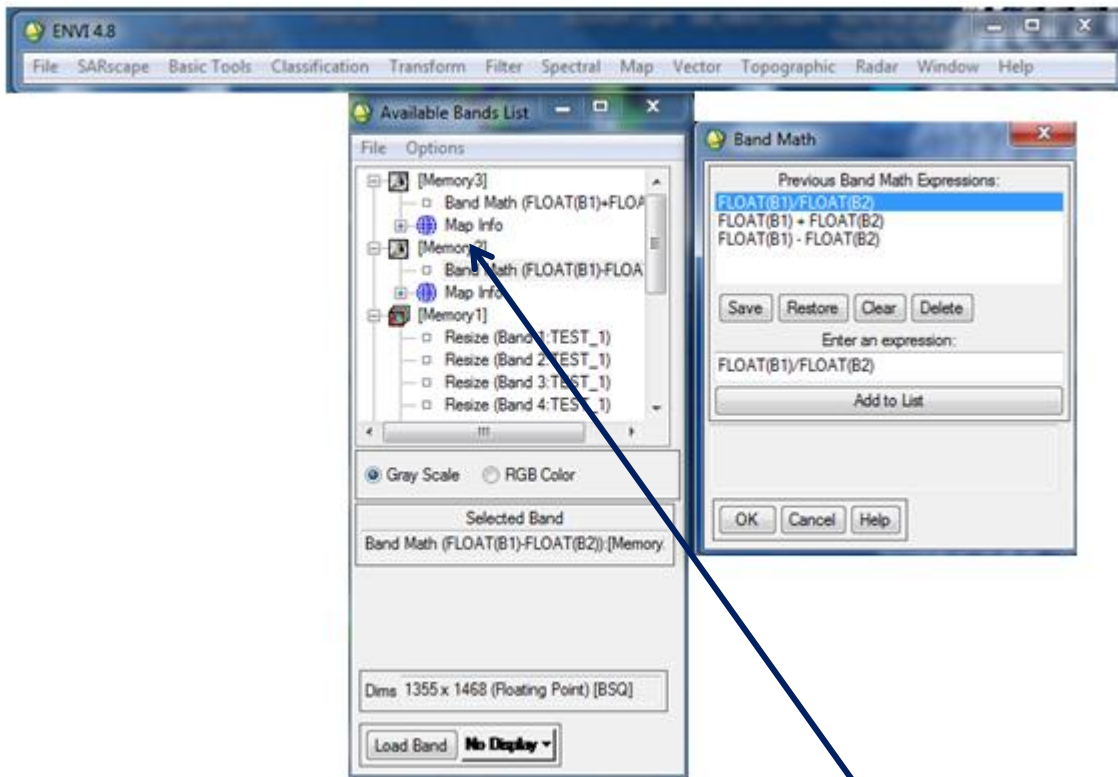
Click Add list Save  
nommer le fichier et  
sauvegarder



Select expression  
Click OK sur band math  
Select B1 & B2 dans variables to  
band click OK  
Band expression  
dans Available Band List





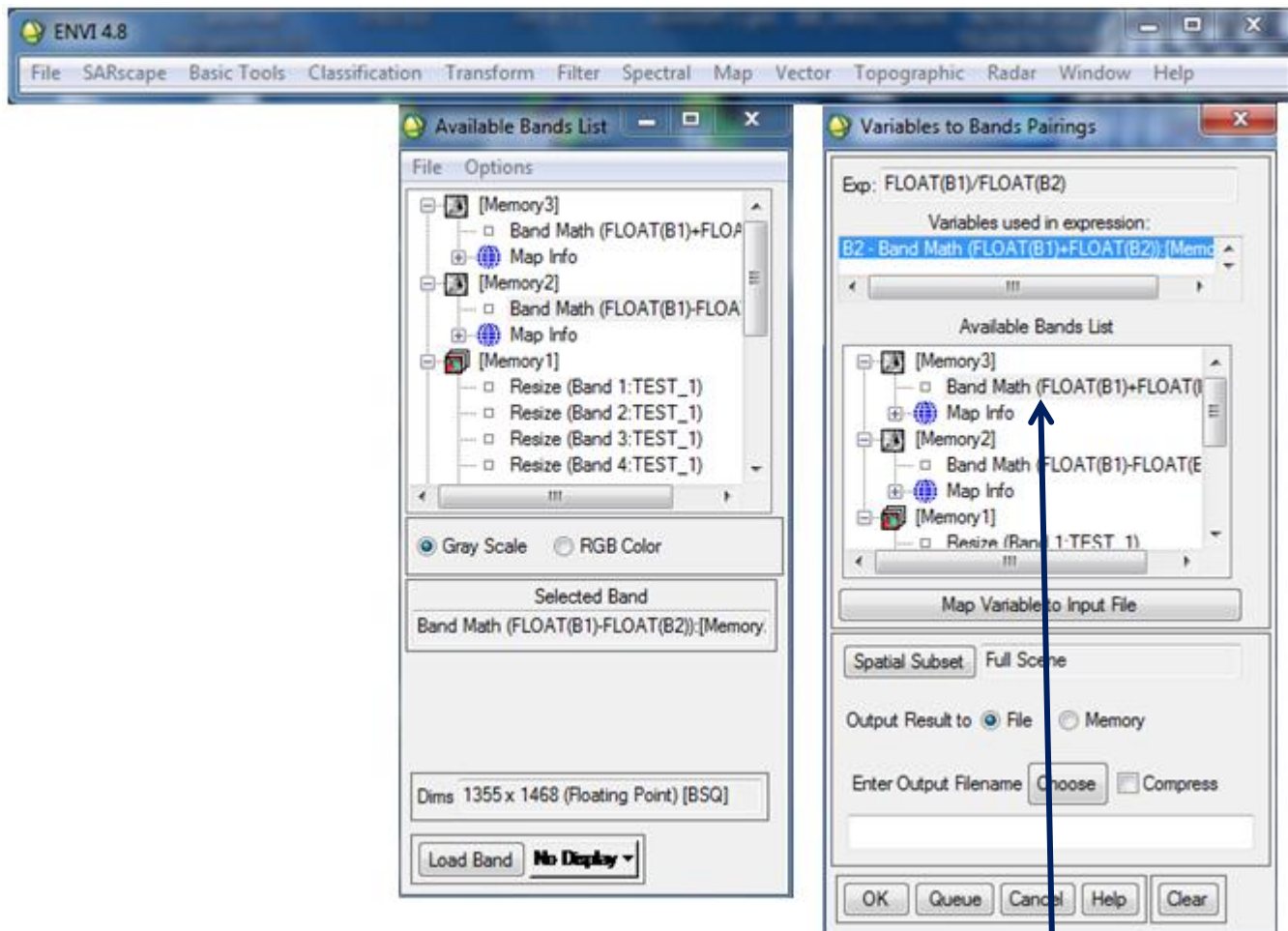


Select expression

Click OK sur band math

Select B1 & B2 dans variables to band click  
OK

Band expression  
dans Available Band List

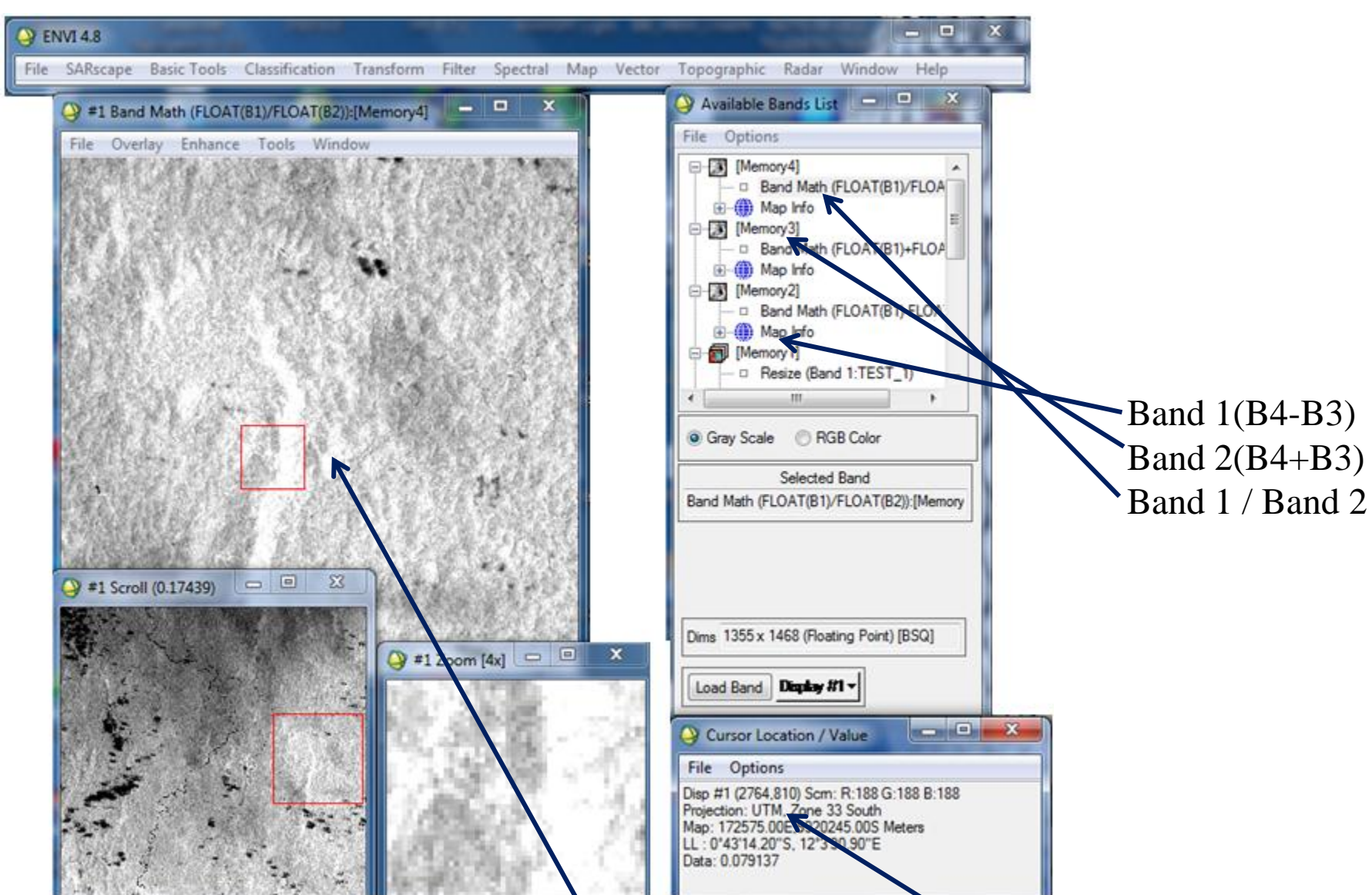


Select expression

Click OK sur band math

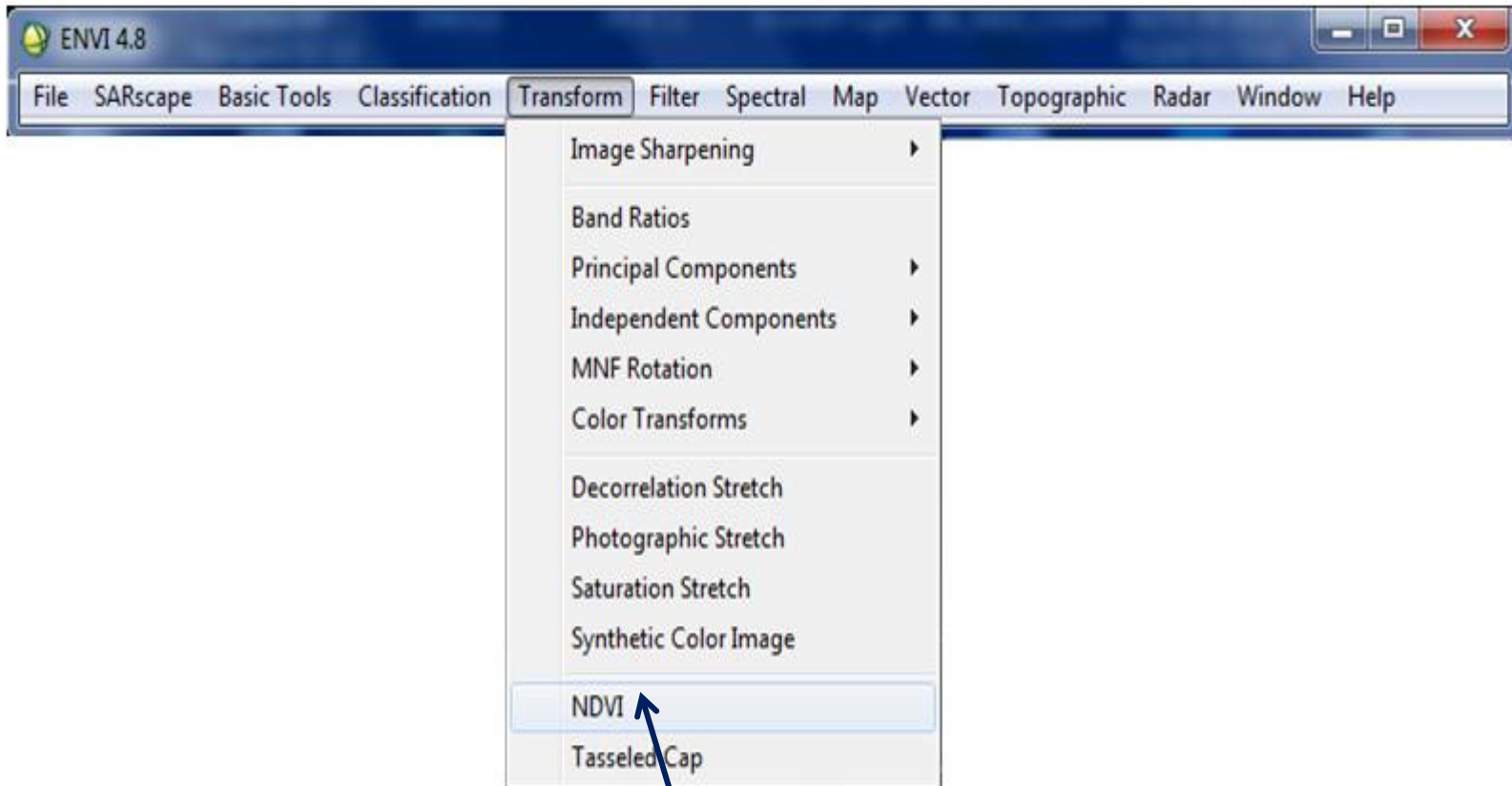
Select B1 & B2 dans variables to band click  
OK

Band expression  
dans Available Band List



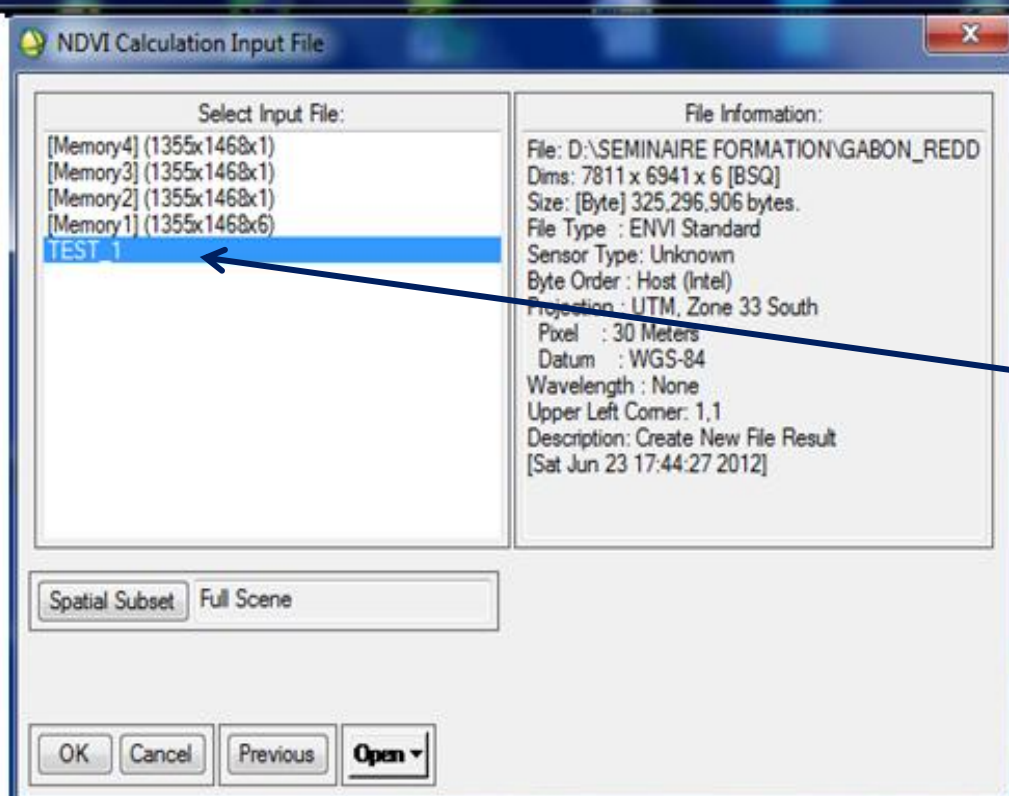
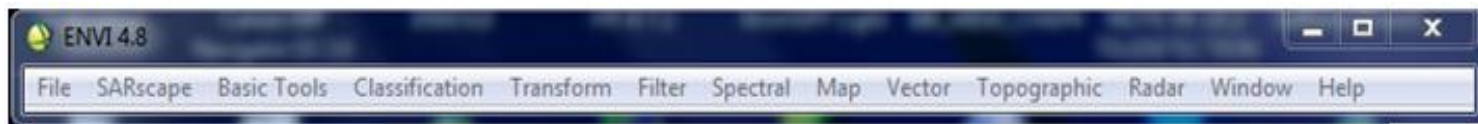
Résultats :  
NDVI values: -1 et 1

NDVI Values

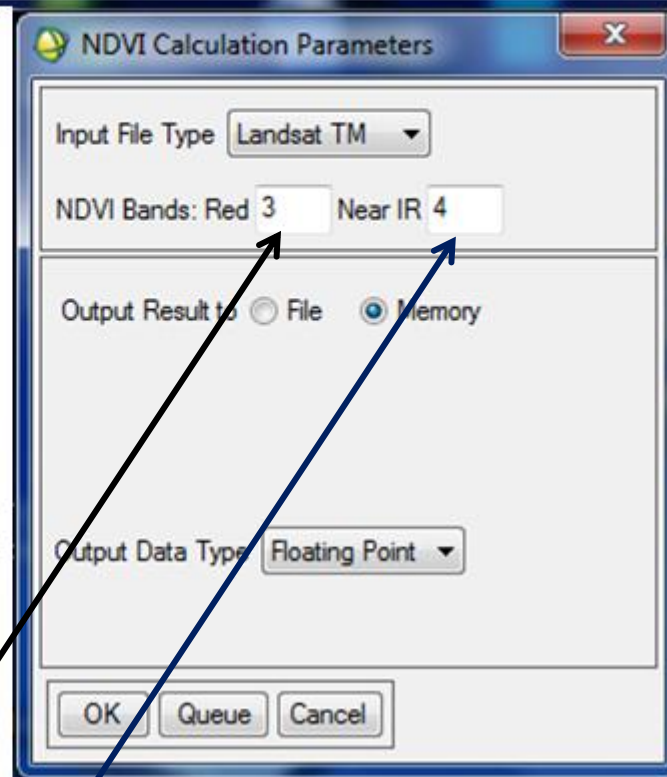
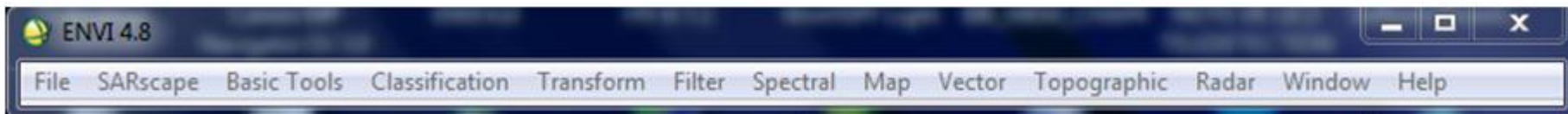


Select NDVI

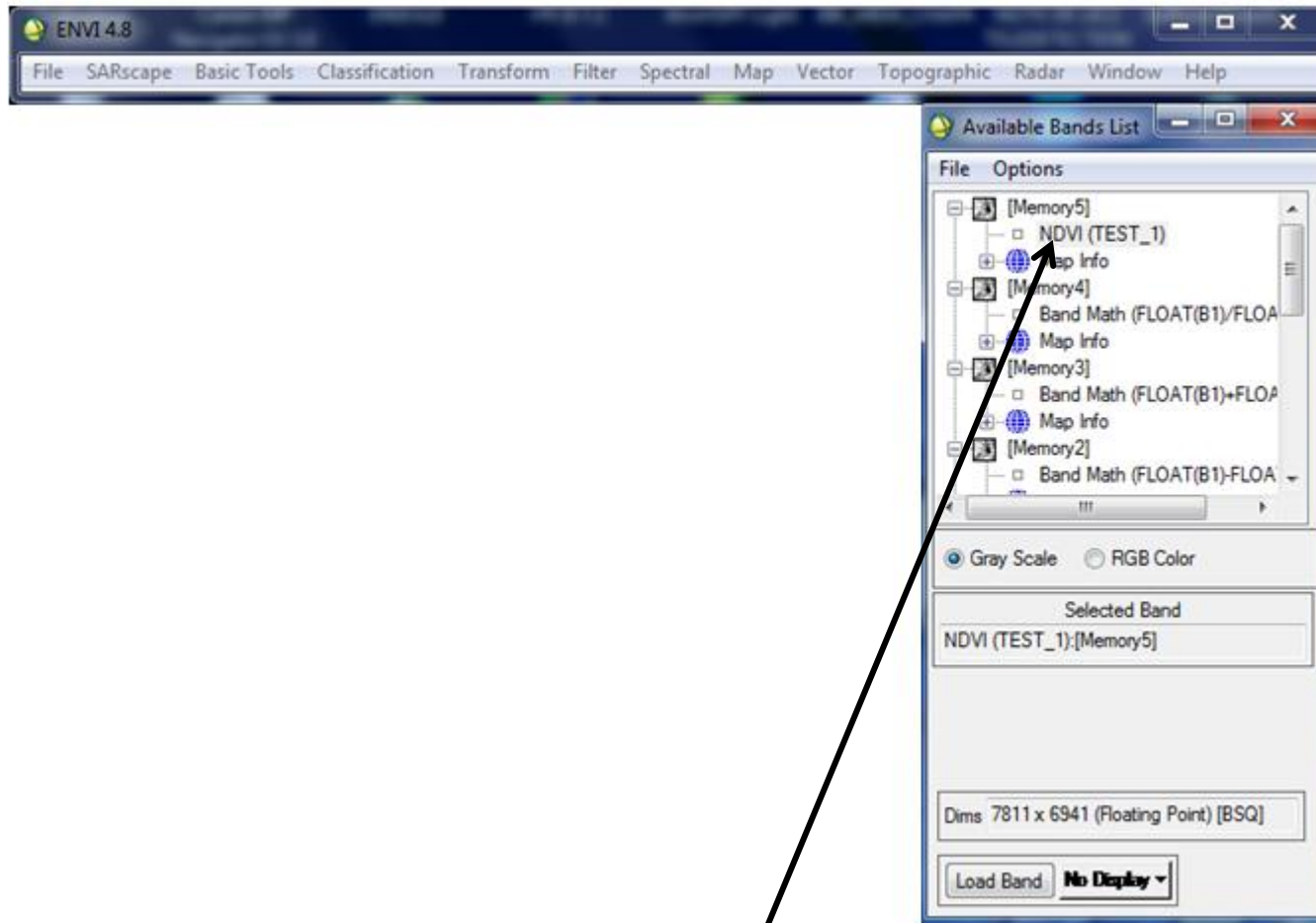




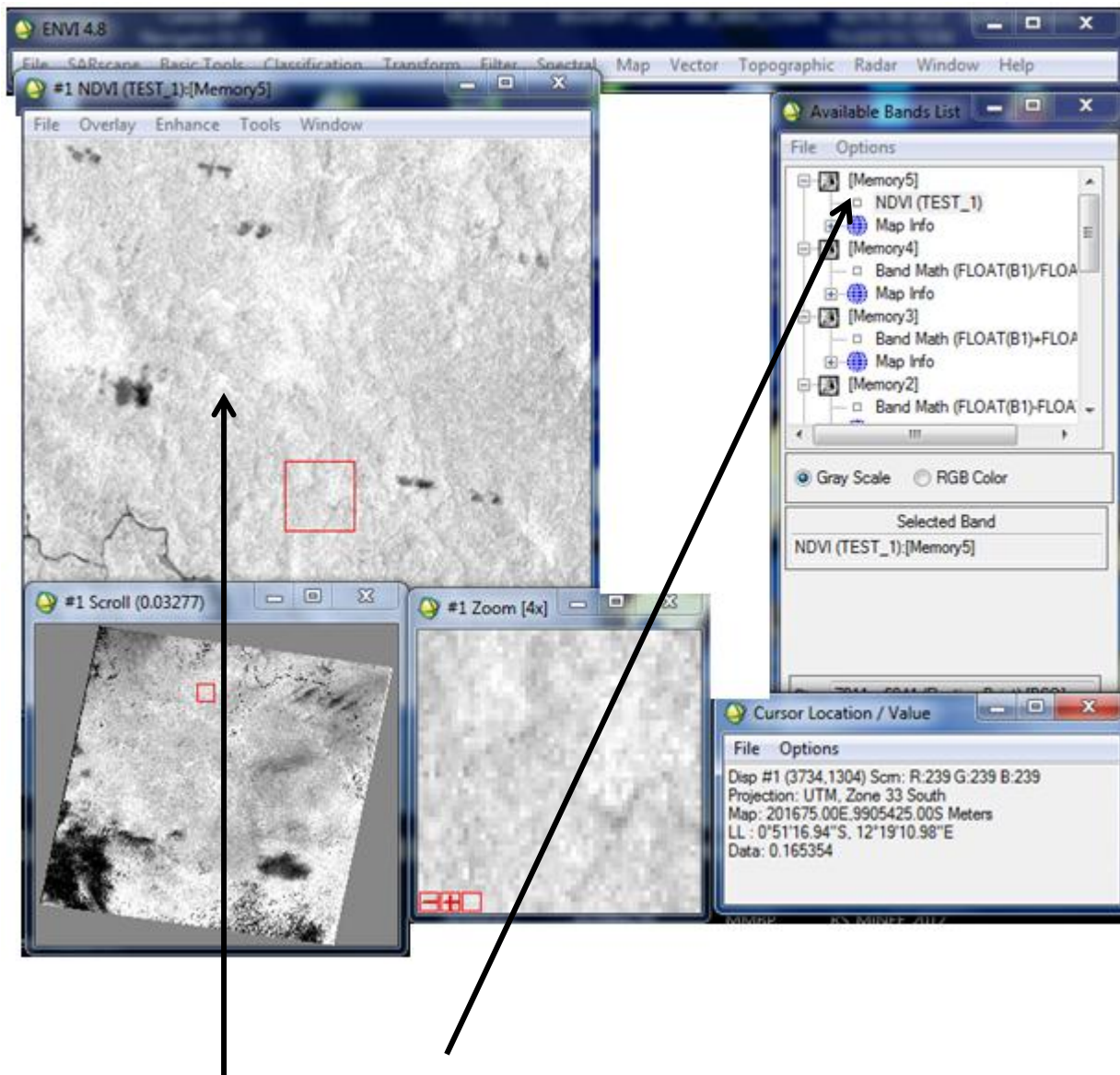
Select image



NDVI Calculation  
Select OK



Select NDVI image name  
Load

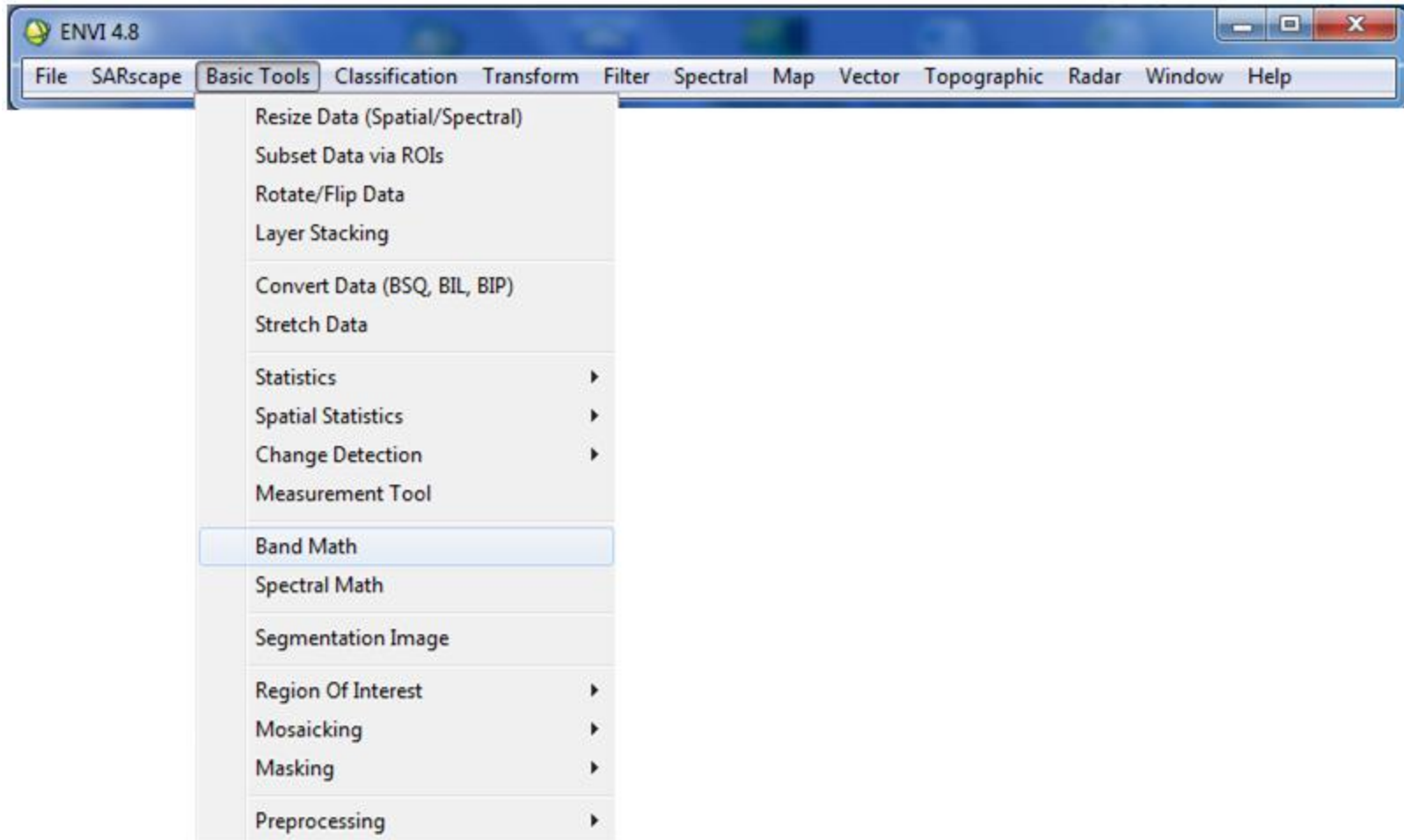


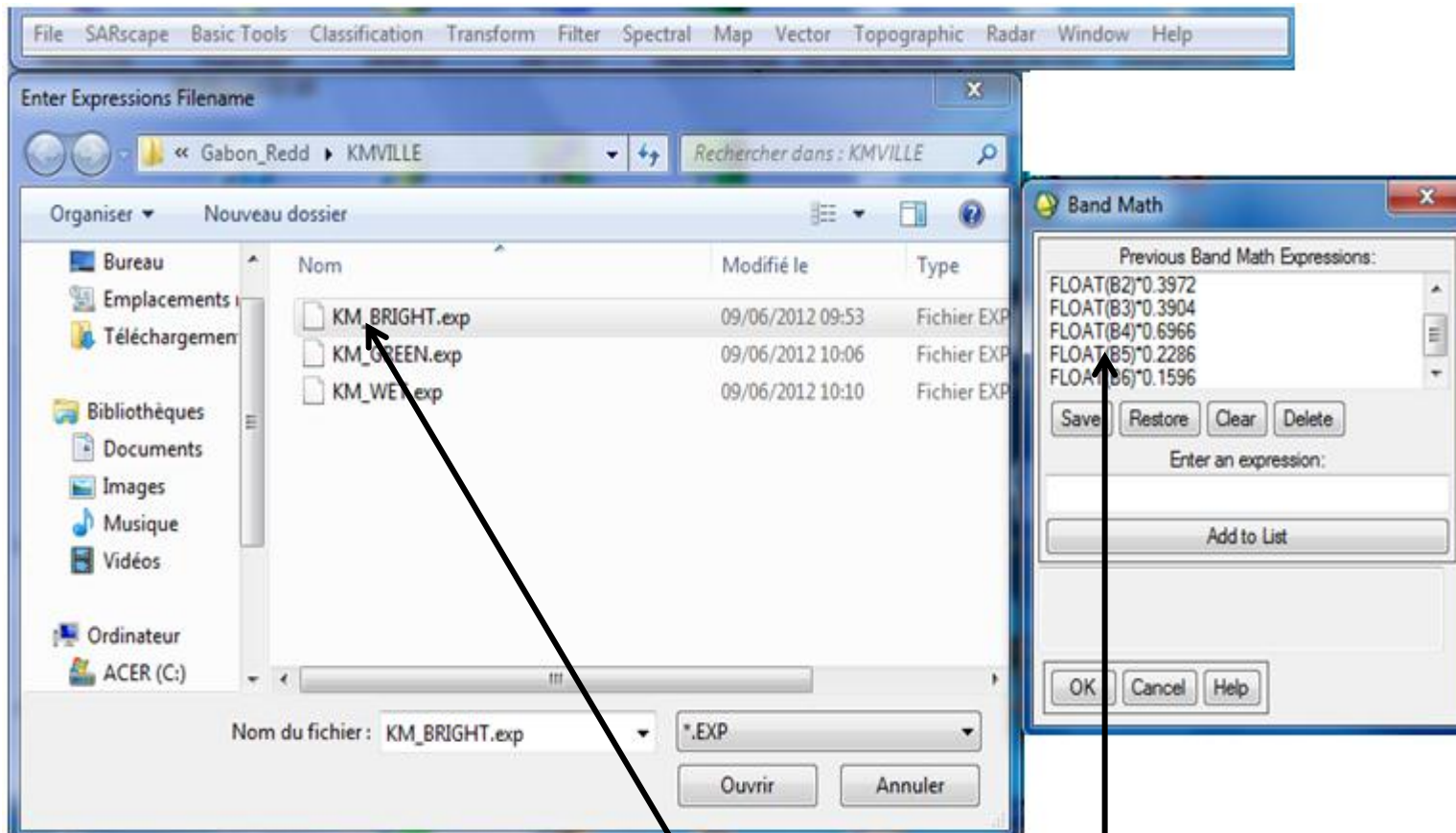
Load image  
Results



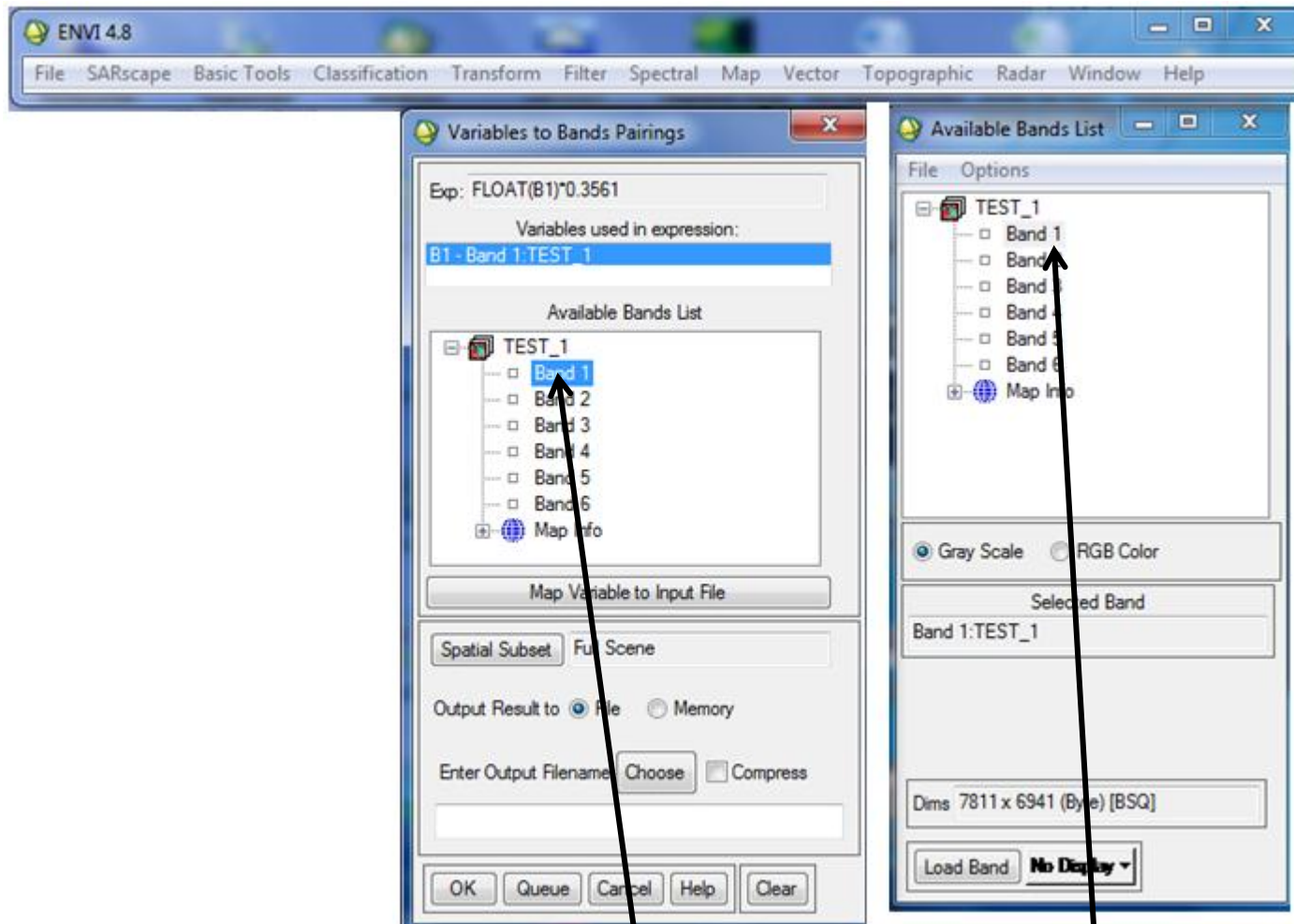
# Calcul des indices de végétation

## Cas Tasseled Cap avec math function

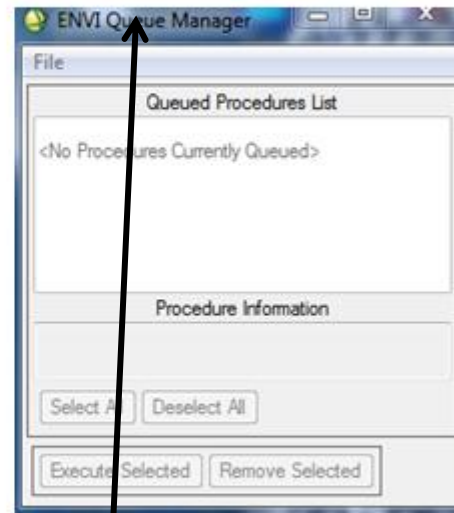
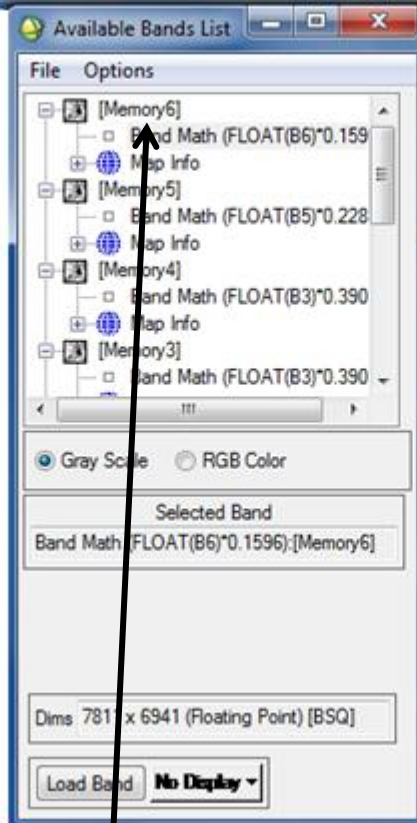
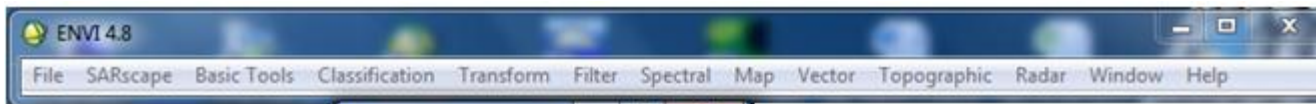




Expression mathématique selon le format de IDL  
Add expression  
Save dans un fichier selon le format IDL



Sélectionner chaque bande  
Ceci est fait sur toutes les bandes

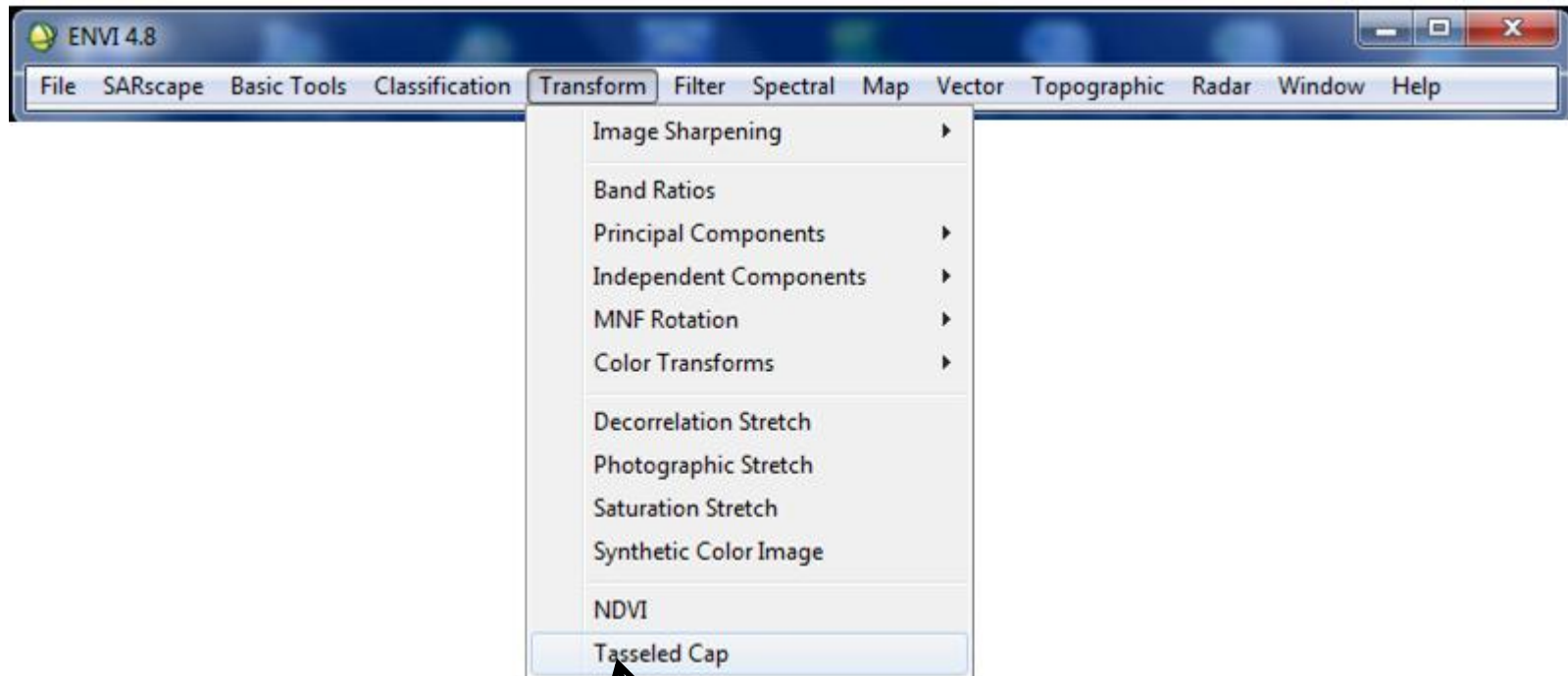


Fonction Queue manager

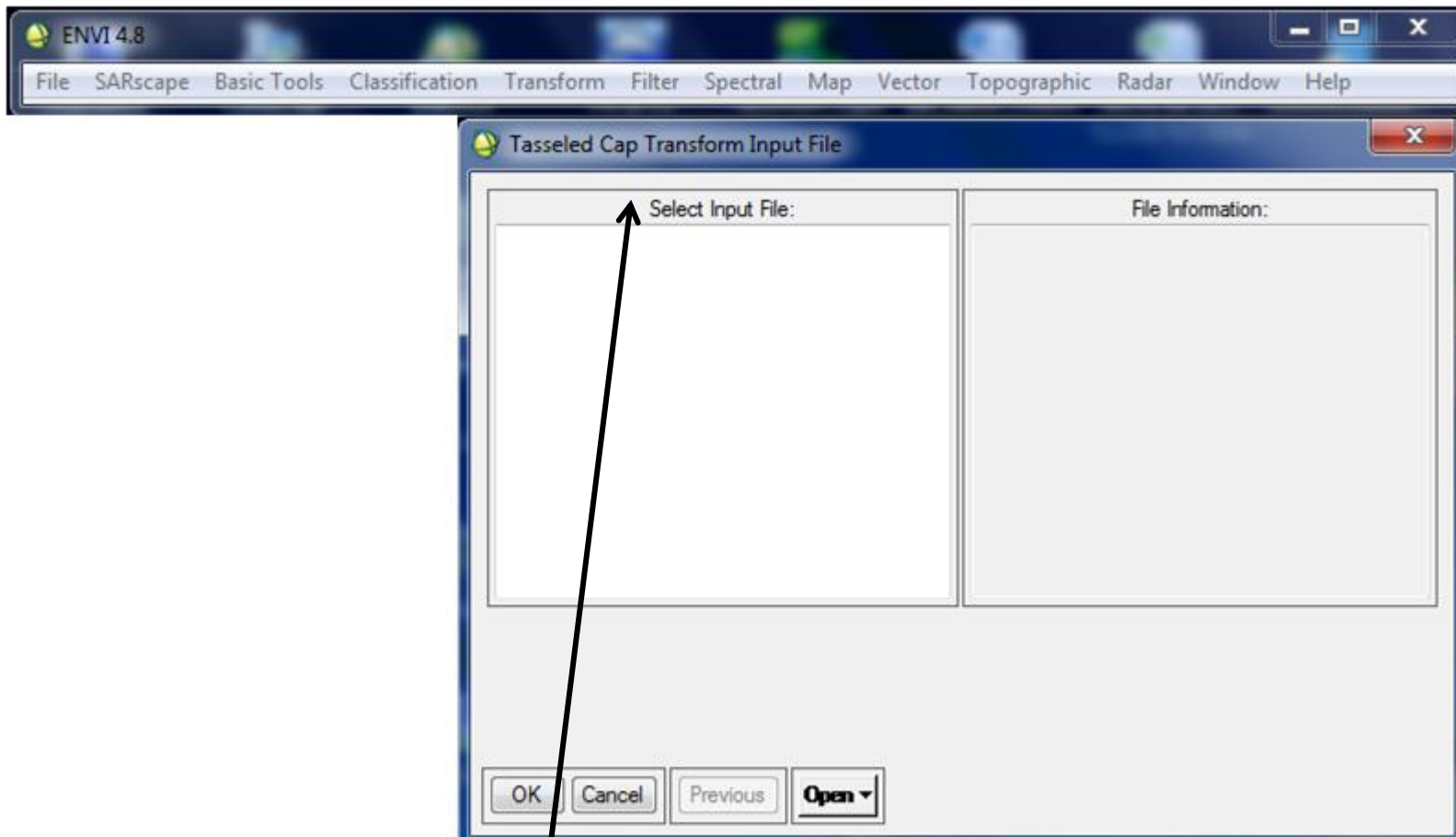
Image pour chaque bande



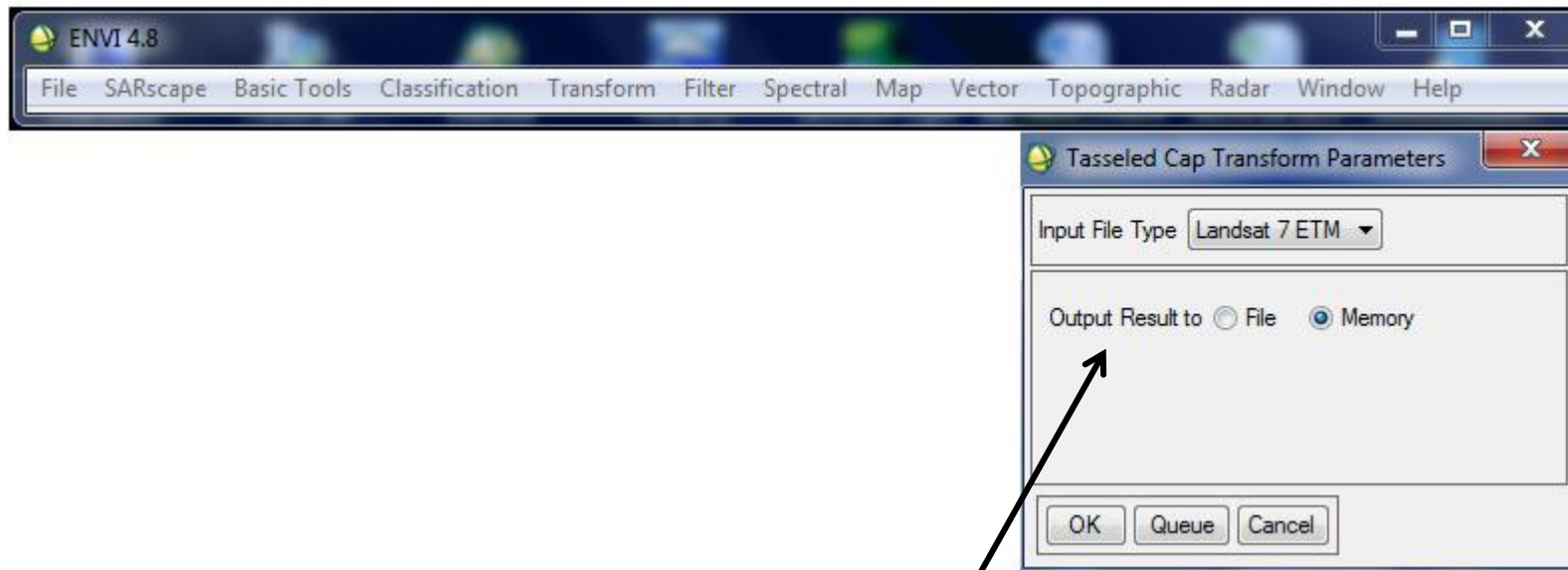
## Cas Tasseled Cap automatique



Tasseled Cap index



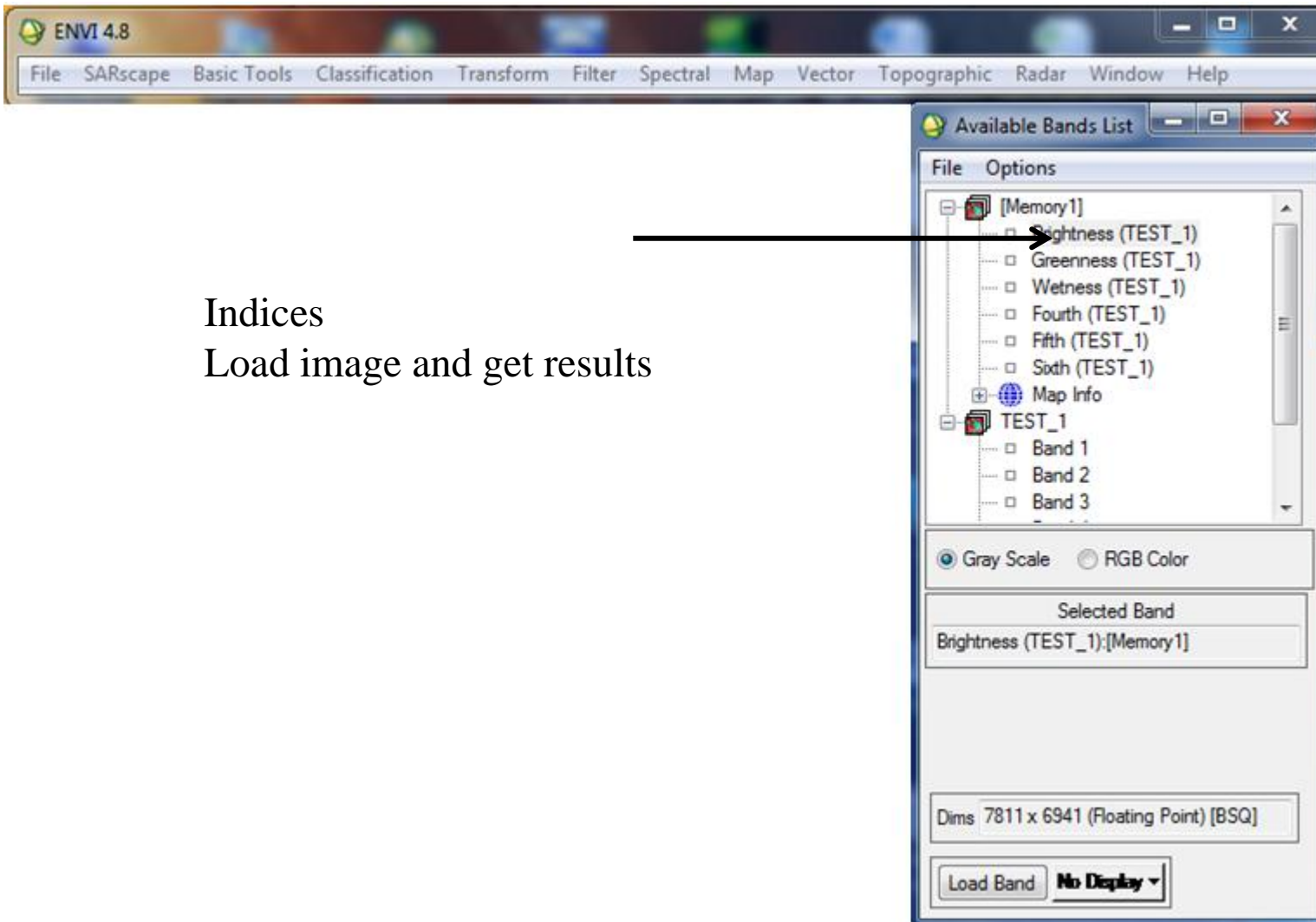
Input le fichier des données



Tasseled cap transform  
Types des données  
OK

Indices

Load image and get results







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# Je vous remercie



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