```
import cv2
import numpy as np
import matplotlib.pyplot as plt

img = cv2.imread("pic.jpg")
rows, cols, ch = img.shape

matrix_trans = np.float32([[1, 0, -100], [0, 1, -30]])
translated_img = cv2.warpAffine(img, matrix_trans, (cols, rows))

scaled_img = cv2.resize(img, None, fx=0.6, fy=0.6)

cv2.imshow("Scaled image",scaled_img)

matrix_rotated = cv2.getRotationMatrix2D((cols/2, rows/2), 90, 0.6)
rotated_img = cv2.warpAffine(img, matrix_rotated, (cols, rows))

cv2.imshow("Rotated image",rotated_img)

pt1 = np.float32([[40,40],[200,40],[40,200]])
pt2 = np.float32([[10,100],[200,50],[100,250]])

matrix_aff = cv2.getAffineTransform(pt1,pt2)
dst = cv2.warpAffine(img,matrix_aff,(cols,rows))

plt.subplot(121),plt.imshow(img),plt.title('Input')
plt.subplot(122),plt.imshow(dst),plt.title('Output')
plt.show()

pt1 = np.float32([[50,65],[370,52],[30,387],[390,390]])
pt2 = np.float32([[0,0],[310,0],[0,310],[310,310]])

matrix_aff = cv2.getPerspectiveTransform(pt1,pt2)
dst = cv2.warpPerspective(img,matrix_aff,(cols,rows))

plt.subplot(121),plt.imshow(img),plt.title('Input')
plt.subplot(122),plt.imshow(dst),plt.title('Output')
plt.show()


cv2.imshow("Translated image", translated_img)
cv2.waitKey(0)
```

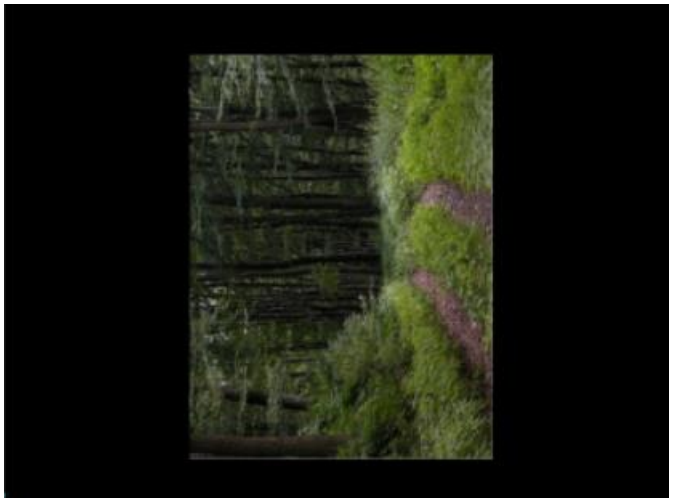
```
cv2.destroyAllWindows()
```

Output:

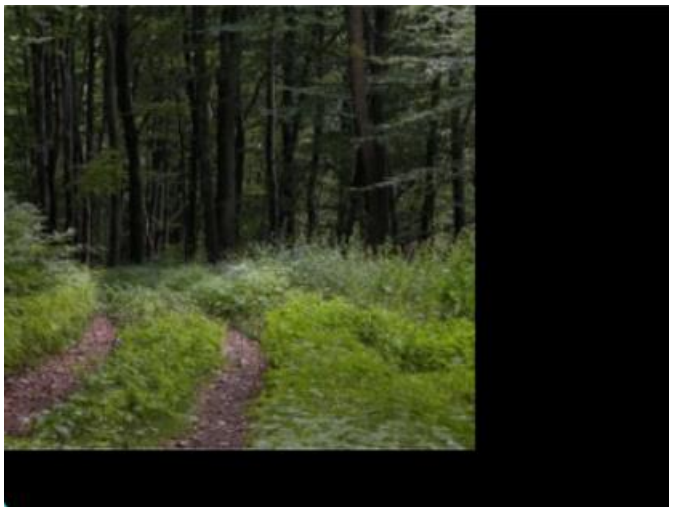
Original image

Scaled image:

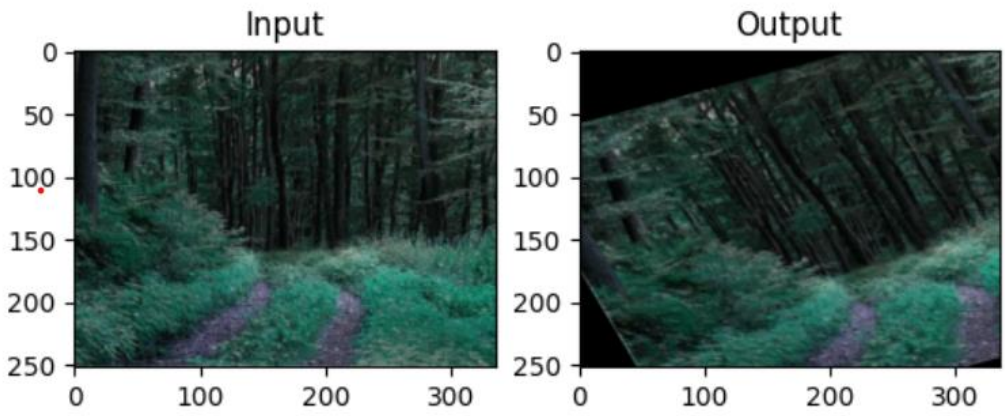
Rotated image:



Translated image:



Affine transformation:



Perspective transformation: