Analysis Of Land Used in Pakistan

Agricultural Vs Other Land

```
In [1]:
          import numpy as np
          import pandas as pd
          from numpy import *
          import matplotlib.pyplot as pt
          import seaborn as sns
In [2]:
          land = pd.read_csv("land_used.csv")
In [3]:
          land.head(3)
Out[3]:
             Domain
                                Area
                                               Element
                                                                  Item
                                                                                     Year
                      Domain
                                         Area
                                                        Element
                                                                              Item
                                                                                           Year
                                                                                                 Unit
                                                                                                         Value
               Code
                               Code
                                                  Code
                                                                  Code
                                                                                    Code
                                                                                                 1000
                         Land
                                                                        Agricultural
          0
                  RL
                                      Pakistan
                                                  5110
                                                            Area
                                                                  6610
                                                                                     1961
                                                                                           1961
                                                                                                       35730.0
                          Use
                                                                              land
                                                                                                   ha
                                                                                                 1000
                         Land
                                                                        Agricultural
          1
                  RL
                                                                  6610
                                                                                     1962
                                                                                           1962
                                                                                                       35840.0
                                 165
                                     Pakistan
                                                  5110
                                                            Area
                                                                                                   ha
                          Use
                                                                               land
                         Land
                                                                         Agricultural
                                                                                                 1000
          2
                  RL
                                 165 Pakistan
                                                  5110
                                                            Area
                                                                  6610
                                                                                     1963
                                                                                                       35880.0
                          Use
                                                                               land
                                                                                                   ha
In [4]:
          #land.goupby (["Item",])
          sns.barplot(x="Item",y="Value",data=land,hue = "Item", order =["Other land","Agricultur
                        ci=None, saturation =0.8)
          <AxesSubplot:xlabel='Item', ylabel='Value'>
Out[4]:
            35000
                                                         Agricultural land
                                                         Other land
            30000
            25000
            20000
            15000
            10000
             5000
                0
                                                    Agricultural land
                           Other land
                                           Item
```

```
In [5]: # now grouping values
land.groupby (["Item","Year"]).mean()
```

| Out[5]: | | | Area Code | Element Code | Item Code | Year Code | Value |
|---------|-------------------|------|-----------|--------------|-----------|-----------|----------|
| | Item | Year | | | | | |
| | Agricultural land | 1961 | 165.0 | 5110.0 | 6610.0 | 1961.0 | 35730.00 |
| | | 1962 | 165.0 | 5110.0 | 6610.0 | 1962.0 | 35840.00 |
| | | 1963 | 165.0 | 5110.0 | 6610.0 | 1963.0 | 35880.00 |
| | | 1964 | 165.0 | 5110.0 | 6610.0 | 1964.0 | 36355.00 |
| | | 1965 | 165.0 | 5110.0 | 6610.0 | 1965.0 | 37235.00 |
| | ••• | ••• | | | | | |
| | Other land | 2015 | 165.0 | 5110.0 | 6670.0 | 2015.0 | 36953.40 |
| | | 2016 | 165.0 | 5110.0 | 6670.0 | 2016.0 | 36425.76 |
| | | 2017 | 165.0 | 5110.0 | 6670.0 | 2017.0 | 36235.08 |
| | | 2018 | 165.0 | 5110.0 | 6670.0 | 2018.0 | 36979.42 |
| | | 2019 | 165.0 | 5110.0 | 6670.0 | 2019.0 | 37020.76 |

89 rows × 5 columns

```
In [6]:
    # now lets see for 2015 after stats
land[land["Year"]>2015].groupby(["Item","Year"]).mean().head(5)
```

| Out[6]: | ea Code | Element Code | Item Code | Year Code | Value |
|---------|---------|---------------------|-----------|-----------|-------|
| | | | | | |

| Item | Year | | | | |
|-------------------|------|-------|--------|--------|-----------------|
| Agricultural land | 2016 | 165.0 | 5110.0 | 6610.0 | 2016.0 36794.00 |
| | 2017 | 165.0 | 5110.0 | 6610.0 | 2017.0 37003.00 |
| | 2018 | 165.0 | 5110.0 | 6610.0 | 2018.0 36300.00 |
| | 2019 | 165.0 | 5110.0 | 6610.0 | 2019.0 36300.00 |
| Other land | 2016 | 165.0 | 5110.0 | 6670.0 | 2016.0 36425.76 |

```
In [ ]:
```