

Green Growth in Economic Surveys

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In the past:

- Green growth chapters about specific issues, predominantly climate change; mainly assessing the economic efficiency of environmental policy tools

In the future:

- Blend green growth in discussions of subjects with an important green growth angle: Taxation, innovation, public infrastructure, chapters on economic growth (China and UK coming up soon)
- Go beyond climate change: Address issues like water, resource efficiency, fisheries
- Further develop analytical tools: Integrate the use of environmental resources into productivity measurement, integrate the costs of inaction into growth models
- Develop more knowledge on important subjects: how to evaluate regulations and environmental impact assessment
- **Develop indicators**

Project: Green productivity measurement

Traditional MFP

$$-\frac{\gamma_t}{\gamma} = \frac{d \ln Q}{dt} - \left(\frac{wL}{wL + u'_K K} \frac{d \ln L}{dt} + \frac{u'_K K}{wL + u'_K K} \frac{d \ln K}{dt} \right)$$

Adjusted MFP:

$$\frac{d \ln MFP}{dt} = -\frac{\gamma_t}{\gamma} + \frac{\gamma_R R}{\gamma} \left(\frac{d \ln Q}{dt} - \frac{d \ln R}{dt} \right) - \frac{u_S S}{\gamma} \left(\frac{d \ln K}{dt} - \frac{d \ln S}{dt} \right)$$

Challenges:

- Measuring shadow prices
- Measuring natural capital stocks and flows