Green innovation in developing countries

Green innovation as way to foster growth in developing countries

The deployment of green innovations to emerging and developing countries will be a strong driver for expanding markets and sustainable economic development. Various new mechanisms to accelerate the diffusion of innovation to developing countries are being explored. Knowledge markets and networks could potentially play a key role in this transfer, e.g. innovative collaboration mechanisms in intellectual property (patent pools are but one example) which allow for a greater flow of research, development and adoption of green technologies in the developing and developed world alike.

While much international policy discussion has focused on adjusting the IPR regime (e.g. weakening IP protection for critical green technologies), the limited absorptive capacity of recipient countries is often a stronger obstacle to technology adoption than the price of patented inventions. Technology transfer and adaptive R&D aimed at building local capacities may be more effective for boosting the use of environmental inventions than purely patent-centred measures. These technology transfer initiatives aim to encourage technology diffusion and adoption by providing access to knowledge, in terms of innovation skills, for example, through education and training (disembodied technology transfer) and funding to cover costs of adoption of (parts of) the technology embodied in the imported equipment (embodied technology transfer) (Popp, 2011).

Aside from foreign direct investment, licensing and international trade, aid from governments in the form of development assistance plays an important role in technology transfer as well as in capacity building for green innovation, in terms of support both for agenda and priority setting and for operations and implementation.

How to promote frontier green innovation?

A portfolio of policies for frontier innovation can generally be thought of as having both supply-side "technology-push" elements that reduce costs of knowledge creation in advance of commercialization, and demand-side ‗market-pull' elements that enhance net revenue from sales after commercialization. Stimulating appropriate innovations will likely require use of multiple incentives that affect investments on both cost and revenue margins. Read more... [1]

How to promote catch-up green innovation?

Promotion of green growth for most developing countries is typically more about catch-up innovation and the diffusion of already-existing technologies than about frontier innovation. For all countries, the cost of not adopting, adapting and using existing green technologies can be high in terms of foregone greener development. Consequently, facilitating access to environmentally-friendly technologies and stimulating their uptake... Read more... [2]

References

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- Popp, D. (2011), “The Role of Technological Change in Green Growth”, mimeo, The World Bank, Washington DC.

Links
[1] https://www.innovationpolicyplatform.org/content/how-promote-frontier-green-innovation
[2] https://www.innovationpolicyplatform.org/content/how-promote-catch-green-innovation
[3] http://dx.doi.org/10.1787/9789264119925-en
[4] http://dx.doi.org/10.1787/sti_outlook-2012-5-en