

Committee on Development and Intellectual Property (CDIP)

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DISCUSSION PAPER ON INTELLECTUAL PROPERTY (IP) AND BRAIN DRAIN

prepared by the Secretariat

I. INTRODUCTION

1. At the Fifth Session of the Committee on Development and Intellectual Property (CDIP), it was decided that the Secretariat would prepare a concept paper with the view to obtaining the guidance of the Committee on the implementation of Recommendation 39 dealing with the subject of IP and Brain Drain.¹ This Discussion Paper is intended to fulfill this purpose.
2. To recall, WIPO Development Agenda Recommendation 39 reads as follows:

“To request WIPO, within its core competence and mission, to assist developing countries, especially African countries, in cooperation with relevant international organizations, by conducting studies on brain drain and make recommendations accordingly.”

¹ See CDIP/5/10/Prov.

II. IMPORTANCE OF BRAIN DRAIN AS A DEVELOPMENT CHALLENGE

3. Outward migration of skilled workers and the associated brain drain phenomenon are important development challenges. The exit of skilled workers directly reduces an economy's human capital endowment. It also does so indirectly, for example, when doctors and teachers no longer attend to the domestic population. Reduced prospects for human and economic development are the inevitable consequence. In the longer term, the possibility of return migration - and the associated "brain gain" - and the economic contributions of overseas diasporas may attenuate initial brain drain losses or may even lead skilled migration to be socially beneficial. However, such outcomes are not guaranteed, especially for the poorest countries that cannot offer internationally competitive employment opportunities for skilled workers.
4. These challenges are well recognized and have been subject to a considerable number of studies in many parts of the world.² In addition, governments have instituted various policies to curtail economically harmful brain drain (or, at least, minimize associated losses) and to encourage "brain gain" outcomes.

III. BRAIN DRAIN AND IP

5. Quite conceivably, there is a relationship between IP and the brain drain phenomenon, with two-way causality. IP protection may affect the decisions of scientists, engineers, information technology specialists and related professionals about where to exercise their profession, with consequences for a country's innovative capacity and the availability of knowledge. While market size will likely be the main variable affecting this decision, international differences in the level of IP protection may well affect migration flows. Vice-versa, outward migration of skilled workers can impact on the effectiveness of the IP system in reaching its goals of promoting innovation and technology transfer.
6. The precise linkages between IP and brain drain are poorly understood, however. There are only a few articles in the economic literature that establish a conceptual link between IP protection, migration and associated knowledge flows.³ Most empirical work focuses on China and India and on possible brain gain effects (for example, how expatriate scientific communities foster technology transfer to their countries of origin).⁴ No empirical research is available on the IP protection-brain drain dimension *per se*, reflecting in part the poor availability of data on migration flows, especially in low income countries.

² See, for example, United Nations, (2006), "International migration and development: Report of the Secretary-General," (Document A/60/871).

³ See McAusland, Carol and Peter Kuhn, (forthcoming), "Bidding for brains: intellectual property rights and the international migration of knowledge workers," *Journal of Development Economics*; and Mondal, Debasis and Manash Ranjan Gupta, (2008), "Innovation, imitation and intellectual property rights: introducing migration in Helpman's model," *Japan and the World Economy*, Volume 20, Issue 3, pp. 369-394.

⁴ See, for example, Kerr (2009), "Ethnic Scientific Communities and International Technology Diffusion." *Review of Economics and Statistics*, August 2008, Vol. 90(3), pp. 518-537. This study makes use of patent data to track ethnicity and technology flows.

IV. POSSIBLE DIRECTIONS OF A CDIP PROJECT

7. In deciding on the direction of any future work related to brain drain, it is worth emphasizing two elements of Recommendation 39. First, WIPO's mandate and expertise lies in the field of IP. Any future work undertaken by WIPO should thus focus on the IP-related aspects of migration, not on the brain drain phenomenon generally. Second, WIPO does not have any in-house expertise or experience on questions of migration. At the same time, much work on migration and development is taking place in other international organizations, including the International Labor Organization, the International Organization for Migration, and the World Bank. Any future work should thus be pursued in cooperation with those other organizations.
8. In deciding on the direction of a possible project on IP and brain drain, Member States may wish to consider the following options:

Awareness raising seminar

9. Given the novelty of the topic for policymakers and scholars, a first activity could focus on raising awareness in both the IP and migration policy communities about the linkages between IP, migration, and brain drain. WIPO could organize a seminar, possibly in cooperation with other international organizations, bringing together senior policymakers, non-governmental organizations, and selected experts. The latter could include professionals affected by the topic. The objective of the seminar would be to better understand the IP-brain drain linkages, to explore how national and international IP policies may help to reduce harmful brain drain effects and promote beneficial brain gain outcomes, and to look at how the brain drain dimension could be integrated into the operational, technical assistance and research programs of the various organizations represented (including WIPO).

Expert workshop

10. A second option would be to organize an expert workshop inviting scholars and policymakers, with a view to developing a research agenda on IP, migration, and the brain drain (which could then be the basis for a follow up CDIP project). This workshop would be organized in cooperation with other international organizations with expertise in the topic. Experts would include migration experts from various fields (economics, education, law, science and technology) and IP experts to explore what studies could realistically be conducted, especially in light of available data.

Specific WIPO research project

11. A preliminary investigation by WIPO's Economics and Statistics Division (ESD) has identified a specific, seemingly feasible research project. One could exploit information on the nationality and residence of patent applicants (and inventors listed in patent applications) to map the migration of scientists. If successful, this mapping exercise would establish a partial geography of migration flows and innovation, insofar the phenomenon can be traced through patent documents. However, the exercise by itself would not offer insights as to the causes and consequences of skilled migration, especially in regards to IP protection. As a second step, a survey could be conducted of the scientists identified through the mapping exercise, which would seek to generate empirical evidence on the latter questions.

V. *The CDIP is invited to consider this document and provide guidance to the Secretariat as regards the implementation Recommendation 39.*

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