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PLANT BREEDERS' RIGHTS IN EGYPT:
A CRITICAL ANALYSIS OF LAW 26/2015

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TABLE OF CONTENTS

1.	Introduction	61
2.	The Right to Food and Sustainable Agriculture: Egypt's Commitment	61
3.	Intellectual Property Rights (IPRs) in Egyptian Agriculture	62
4.	Conditions for Protection	64
	4.1 Requirements Established by UPOV	64
	4.2 The Disclosure of Origin Requirement	65
	4.3 The Benefit Sharing Requirement	67
5.	Breeders' Rights	68
6.	Exemptions to Breeders' Rights	69
	6.1 Farmers Exemption	69
	6.2 The Breeders' Exemption	70
	6.2.1 Other Public Policy Concerns Reflected in the EIPL82/2002	71
7.	Conclusion	72

1

INTRODUCTION

Bread riots can be considered as a typical signal of revolution in Egypt.¹ During the ‘Arab Spring’, the demand for ‘bread, freedom and social justice’ illustrated the way in which restricted access to food had become one of the main grievances within Egypt.² In 2015, however, Egypt issued Law No. 26 which amended Book 4 on Plant Variety Protection of the Egyptian Intellectual Property Protection Legislation (thereafter EIPL 82/2002). Law 26/2015 recognises that the amendment of the plant variety protection system is intended to ensure compliance with the Association Agreement with the European Union (AA).³ This amendment raises the question – although it may seem a political one – of what the 2011 Revolution’s demand for ‘bread, freedom and social justice’ would mean for the Egyptian government, specifically policy and law makers.

The aim of this paper is to provide an in-depth analysis of the main features of Law 26/2015. It examines the extent to which Law 26/2015 is in line with the interest of Egypt, specifically its contribution to agricultural development in Egypt, which according to its 2014 Constitution preserves the Egyptians’ rights to adequate food and sustainable agriculture.⁴ In doing so, this paper compares the breeder’s right under Law 26/2015 to those granted under the EIPL82/2002 in order to capture shifting objectives of the legislation

in the last two decades. This paper reflects upon the way in which the interests of farmers and plant breeders have been considered in Egypt. Section 1 discusses how the plant breeders’ rights (PBRs) regime has developed in the country and why. Section 2 looks at the protection requirements before the amendment of the EIPL 82/2002 to those of Law 26/2015. In this context, the deletion of the disclosure of origin requirement under Law 26/2015 raises concerns about ensuring that a plant’s genetic material is legally obtained by a breeder. Section 3 discusses the scope of the breeder’s right, and the exceptions to this right after amending the EIPL 82/2002. The discussion will focus on the effects of Law 26/2015 on the agricultural practices of Egyptian farmers.

2

THE RIGHT TO FOOD AND SUSTAINABLE AGRICULTURE: EGYPT’S COMMITMENT

In 2014, Egypt committed itself to the principle of sustainable development, and the right to a sustainable environment has been enshrined for the first time within the new Egyptian Constitution.⁵ The constitutional reform in Egypt was in response to environmental problems that have complicated the efforts to promote economic and social development. Indeed, the constitutional emphasis on sustainable development reflects the fact that one of the main factors igniting the uprising of 2011, and the following uprising in Egypt was extreme poverty and hunger. Bread riots can be considered as a typical signal of revolution in Egypt and protesters repeated three demands ‘bread, freedom and social justice’.⁶ Thus, the Constitution at its core aims to embrace a development approach that balances social and economic needs with the protection of the environment.

1 Flavia Lorenzon, ‘The Political Economy of Food Subsidies in Egypt: Reforms and Strengthening of Social Protection’ 2016 Public Sphere 107.

2 Mariz Tadros, ‘Where’s the ‘Bread, Freedom and Social Justice’ a Year After Egypt’s Revolution’ *The Guardian* (25 January 2012) <www.theguardian.com/World/Development/Governance> accessed 20 December 2017.

3 Law 26/2015 <www.slideshare.net/MedhatEldin/26-2015-79174238>. Note that Law 26/2015 is in Arabic, thus, the author had no choice except to rely on the draft of Law 26 approved by the Office of the UPOV. However, most of the Egyptian laws on which the author is reliant are available in an English version under official translation, including the new Constitution of 2014.

4 Article 79 of the Constitution of the Arab Republic of Egypt 2014.

5 Tadamun (تضامن), the Right to a Sustainable Environment in the Egyptian Constitution (Tadamun 8 January, 2014) <www.tadamun.info/.../right-to-a-sustainable-environment-in-the-egyptia> accessed 1 March 2016.

6 Tadros (n 2).

The 2014 Constitution declares that the Egyptian people have a right to adequate and healthy food within the context of sustainable development, establishing the responsibility of the state to ensure food resources to all citizens. Article 79 of the Constitution provides that:

Each citizen has the right to healthy, sufficient amounts of food ... The state shall provide food resources to all citizens. It also ensures food sovereignty in a sustainable manner and guarantees the protection of agricultural biological diversity of local plants to preserve the rights of generations.⁷

According to Article 79, Egypt obligates itself to fulfil the right to food by providing food resources to the people. Under international law, the right to food is legally binding right for the Egyptian government as it has ratified the International Convention on Economic, Social and Cultural Rights (ICESCR). From a human rights perspective, thus, it is important to identify state obligations to address food security. The drafting of the right to food may seem different from that of the ICESCR, but the normative content of the right to food in the Egyptian law is similar, and the language used reflects the fact that food subsidy programmes are a key component of the country's social policy. According to the General Comment No. 12 issued by the United Nations Committee on Economic, Social and Cultural Rights in 1999, the right to food 'is realised when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement'.⁸

The Constitution does not explain how to implement the commitment to adequate food as the legislative measures necessary to realise the right to food need to be adopted. But the obligation here extends to all state institutions to take appropriate measures towards the realisation of the right to food. Thus, changes in agricultural policies need to be considered in terms of its potential impacts on farmers, and people's

livelihoods, particularly those with low income. The drafting of Article (79) suggests that the right to food is built on three main pillars: food sovereignty, the conservation of agro-biodiversity, and the consideration of the needs of future generations. It links the realisation of the right to food to the taking of measures that ensure sustainable natural resources and development by obligating the State to conserve agricultural biodiversity.

The realisation of the right to food is dependent on the availability of food resources. Therefore, the vision for sustainable agriculture in the 2014 Constitution is based on the idea that food must be nutritious and accessible for all, and natural resources are managed in a way that maintains ecosystem functions to support current and future generations' needs. The inter-linkage among sustainable agriculture, food security and the right to food is recognised in the UN Development Agenda for 2030. The goal to end hunger, achieve food security and improved nutrition and promote sustainable agriculture entails 'improving the productivity and incomes of small-scale farmers by promoting equal access to land, technology and markets, sustainable food production systems and resilient agricultural practices'.⁹ Although we no longer can look at food, livelihood and sustainable agriculture separately, the linkage among them needs to be comprehensively addressed.

3 INTELLECTUAL PROPERTY RIGHTS (IPRS) IN EGYPTIAN AGRICULTURE

Egypt developed one of the world's first agricultural systems.¹⁰ Indeed, ancient Egyptians practiced a kind of sustainable agriculture by adapting their farming along the Nile valley to the ecological condition, which

⁷ Article 79 (n 4).

⁸ Committee on Economic, Social and Cultural Rights, General Comment No. 12: The Right to Adequate Food (Art.11), UN Doc. E/C.12/1999/51999) 2.

⁹ Sustainable Development Goals and Targets, in United Nations General Assembly Resolution 70/1, Transforming our World: The 2030 Agenda for Sustainable Development, UN Doc. A/RES/70/1 (2015), Goal 2.

¹⁰ J Donald Hughes, *An Environmental History of the World: Humankind's Changing Role in the Community of Life* (Routledge 2011) 38-39.

allowed their civilization to survive and thrive.¹¹ Today, agriculture is still a key component of the Egyptian economy. It provides livelihoods for about 55 percent of the population, which is largely rural.¹² The agricultural sector accounts for about 17 percent of the country's gross domestic product (GDP) and approximately 20 percent of its foreign exchange earnings.¹³ Crops such as cotton, rice, wheat, and clover cover 80 percent of the cultivated area of the country.¹⁴ Agriculture is also a source of raw material for a number of economic sectors, including the cotton industry.

Egypt's agricultural production, food security, and environmental conservation depend, to a large extent, on the country's remarkable biodiversity as the country is home to more than 3,000 plant species.¹⁵ In addition, agro-biodiversity of the country includes the numerous practices that farmers employ to use, enhance, and conserve the crops. The informal seed system is still the major source of supply, as farmers and local communities in Egypt are widely dependent on this system to meet their agricultural and food needs. It is estimated that 62 per cent of the Egyptian farmers relied on farm saved seed.¹⁶

Historically, Egypt has kept its agricultural sector outside the purview of the IPRs system. It was decided

early in 1939, that plants are not patentable when the Mixed Court of Appeal of Egypt refused to grant a patent on an invention related to plants and plant varieties. The Court held that a newly discovered variety of cotton is not patentable, emphasising that property rights cannot be claimed over seed that is similar to those produced in the country.¹⁷ However, the early attempts to bring agriculture within the ambit of intellectual property protection were early 2000. To bring its domestic legislation into compliance with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) of the World Trade Organization (WTO), Egypt modified its intellectual property law. Besides, Egypt is also obligated to bring its intellectual property law into conformity with the bilateral trade deals with the European Union.¹⁸ Article 73(5) of the Association Agreement requires Egypt to join the International Union for the Protection of New Varieties of Plants (UPOV) Convention 1991 [hereafter UPOV 91].¹⁹ The time frame for adhering to UPOV expired in 2009 as Egypt was required to accede to UPOV by the end of the fourth year after the entry into force of the AA.

During the negotiation of the Association Agreement, the EIPL (82) was brought in by the Parliament in 2002. Megeed argues that Egypt was prompted to develop intellectual property protection legislation by its obligation under Article 27.3(b) of TRIPs and the Association Agreement.²⁰ Adhering to UPOV 91 is not required by the TRIPs Agreement. While Egypt

11 P Ilyinski, 'The Impact of the Novel Technologies on the Environment throughout History' in Yuri Magarshak, Sergiy Kozrev and Ashok K Vasashta (eds), *Silicon Versus Carbon: Fundamental Nanoprocesses, Nanobiotechnology and Risks Assessments* (Springer 2008) 187.

12 Mohamed A El Hawary and R Rizk, 'Egypt: Country Pasture/Forage Resources Profiles', United Nations Food and Agriculture Organization (FAO), 2011 <www.fao.org/ag/agp/agpc/doc/counprof/PDF%20files/Egypt.pdf> accessed 25 August 2017.

13 *ibid*.

14 Majdi Madcour and Abdul Munim Abouzeid, Egypt: Country Report to the FAO International Technical Conference on the Plant Genetic Resources, Leipzig 1996 (Giza, May 1995) 11.

15 Salma N Talhouk and Maya Abboud, 'Impact of Climate Change: Vulnerability and Adaptation' in Mostafa K Tolba and Najib W Saab (eds), *Arab Climate Change: Impact of Climate Change on Arab Countries* (Arab Forum for Environment and Development (AFED) 2009) 1,102.

16 Mohamed S Abd El-wanis, Focus on the Seed Programmes: The Seed Industry in Egypt (Country Report, ICAARDA, 2001, the author's translation) 8-10. Conny Almekinders, 'The Importance of Informal Seed Sector and its Relation with Legislative Framework' (1994) 78(3) *Euphytica* 207-216.

17 The Court of Appeal of Egypt, 13 November 1939. (the author's translation)

محكمة الاستئناف المختلطة في 13 نوفمبر 1939

18 It is important to mention that the Association Agreement with the EU is a comprehensive agreement that encompasses political, economic and trade relations. The negotiations of the Agreement between Egypt and the EU lasted about five years, started in 1995 and were concluded in 2001. After its ratification by the Egyptian People's Assembly and all the EU member state, the AA entered into force in June 2004.

19 Article 37 of the AA sets a general provision on intellectual; property rights protection that requires Egypt to provide suitable and effective protection of intellectual property rights making reference to 'the Prevailing international standards of protection'.

20 Eid M Abdu Al Majeed, 'Commentary on Egypt's Plant Variety Protection Regime' in Michel Halewood (ed), *Farmers' Crop Varieties and Farmers Rights: Challenges in Taxonomy and Law* (Routledge 2016) 308.

considered its plant variety protection system of Law 82/2002 as compatible with the UPOV Convention, the UPOV Office rejected it and required Egypt to provide for the protection of essentially derived varieties, and to extend the breeder's right to harvested material of protected varieties. It also opposed Article 200 on disclosure of origin and benefit sharing describing it as providing requirements that are not envisaged in the UPOV convention. Abdu Latif describes the relationship between Egypt and the UPOV as 'legal imbroglio'.²¹

Egypt started the procedure to become a member of the Union in October 1999, but several reasons beyond protecting plant varieties made it difficult to amend the EIPL 82/2002 as became clear from its lengthy amendment process.²² The process started by requesting the advice of UPOV on the conformity of a Draft Ministerial Decree on the Protection of Plant Varieties with UPOV 91.²³ Between (2009-2014), Egypt developed a number of draft provisions of Book 4, and the UPOV Office provided assistance to ensure the incorporation of the essential provisions. In 2009, the Egyptian government informed the Office of the UPOV that amendments to Book 4 were under consideration and a draft law had been prepared for this purpose.²⁴

Amending the EIPL 82/2002 required coordination and agreement between different governmental agencies and not only the Ministry of Agriculture which is supervising the plant breeding department. During the negotiation of the draft law, the Ministry of Higher Education was in favour of including an additional text in the plant variety protection law that links farmers' rights to breeders' rights.²⁵ But there was no consensus on how to achieve farmers' rights in the proposed legislation, particularly through intellectual property rights. It is relevant in this context to mention

that the Ministry of Environment is currently drafting a law on the protection and exchange of plant genetic resources.²⁶

In September 2014, the Union decided that the proposed amendment to Book 4 appeared to be in compliance with UPOV 91, after the incorporation of certain provisions in accordance with the comments of the Office of the Union.²⁷ These amendments will be discussed in greater detail below.

4 CONDITIONS FOR PROTECTION

The EIPL82/2002 defines the characteristics of the varieties that qualify for protection, namely novelty, uniformity, stability and distinctiveness. It also sets disclosure and benefit sharing provisions as requirements for the protection of a new variety.

4.1 Requirements Established by UPOV

Under Law 26/2015, the substantive requirements that must be demonstrated to merit protection for a specific plant variety (novelty, uniformity, stability and distinctness) are preserved as they were in the EIPL 82/2002.²⁸ The latter provides that a variety is new, if it has not been exploited for one year prior to the filing date of the application inside Egypt and for four years for crops exposed or circulated outside Egypt, and this period should not exceed six years for vines and trees.²⁹ This requirement corresponds to the

21 Ahmed Abdel Latif, 'Implementation of the IPR Provisions of the EU Egypt Association Agreement' (Implementation of the IPRs provision in FTAs, Geneva, 2009).

22 UPOV, Examination of the conformity of the 'Draft Provisions of Book Four "Plant Varieties" of Law No. 82 of 2002 Pertaining to the Protection of Intellectual Property Rights' of Egypt with the 1991 Act of the UPOV Convention (UPOV Council, c(extr.)/32/3, 17 February, 2015).

23 *ibid.*

24 *ibid.*

25 Al Majeed (n 20).

26 Egyptian Environmental Affairs Agency, Ministry of Environment,

[http://hhh//ceaa.gov.eg/areg/موضوعاتبيئية/حمايةالطبيعة/التوعايلوجي/المرادالوراثيةالنباتية/الطبعةالتامة،دارالنهضةالعربية،\(2009\).asp](http://hhh//ceaa.gov.eg/areg/موضوعاتبيئية/حمايةالطبيعة/التوعايلوجي/المرادالوراثيةالنباتية/الطبعةالتامة،دارالنهضةالعربية،(2009).asp) accessed 26.11.2018.

27 UPOV (n 22) 2.

28 Article 192 of Law 26/2015.

29 Sameha Al Qalyubi, Industrial Property (8th edn, Dar Al Nahda Al Arabiya 2009,) 723 (the author's translation)

This reference is in Arabic and it

29. سمحة القليوبي، الملكية الصناعية (الطبعة التامة، دار النهضة العربية، 2009)

does not have an English translation.

29. سمحة القليوبي، الملكية الصناعية (الطبعة التامة، دار النهضة العربية، 2009) Sameha Al Qalyubi, Industrial Property (8th edn, Dar Al Nahda Al Arabiya 2009) 723 (the author's translation).

provisions of articles 5 to 9 of UPOV 91 which consider a variety as novel if the 'propagating or harvested material of the variety has not been sold or otherwise disposed of others'.³⁰ Dutfield opines that 'the UPOV defines novelty in relation to commercialisation and not by the fact that the variety did not previously exist'.³¹ Looking at the Egyptian law, one will find that the novelty criterion under the Egyptian law specifies the type of material 'the vegetation propagation of the variety' the commercialisation of which would be detrimental to the requirement of novelty.³² In the practice of the Egyptian Plant Variety Protection Office, the burden of proof is placed upon the applicant.³³

In the same context, Article 192 of the EIPL 82/2002 contains the uniformity condition of protection that corresponds to UPOV 91, thus it is preserved. It provides that a variety shall be deemed uniform 'when the variations among its class remain within permissible limits'.³⁴ This implies that all the plants of a specific variety are similar. Thus, uniformity can be assessed through an examination of the overall range of variation that was observed across all the individual plants.³⁵

In addition, the EIPL 82/2002 considers a variety stable if its essential characteristics do not change after

repeated reproduction or propagation.³⁶ The Executive Regulation (No.1366/2003) of the Egyptian Intellectual Property Legislation 82/2002 [EIPL 82/2002] specifies that the essential characteristics of a variety should remain unchanged after its repeated planting for two years or two seasons.³⁷

The fact that Egypt is a party to the UPOV Convention raises questions about whether there could be room for flexibility in applying its plant variety protection regime to protect farmers' traditional varieties. Farmers' varieties cannot be protected under the UPOV system because farmers' varieties most commonly do not show sufficient uniformity and stability to be protected under plant variety law.³⁸ The imposition of the requirements for stable and genetically uniform plants is criticised as it could lead to the replacement of genetically-diverse traditional varieties by modern seeds, which are to a large degree genetically uniform.³⁹ Therefore, it is suggested that the criteria of uniformity and stability could be replaced by a single criterion of 'identifiability'.⁴⁰ This is to allow more heterogeneous traditional varieties to be protected and to safeguard the interests of the local communities.⁴¹

4.2 The Disclosure of Origin Requirement

Before its amendment, the EIPL 82/2002 set out another requirement for the protection of plant variety. This requirement is the obligation to disclose the origin of plant genetic resources and associated traditional knowledge used in the breeding of a new plant

30 Article 6 of UPOV 91.

31 Graham Dutfield, 'Food, Biological Diversity and Intellectual Property: The Role of the International Union for the Protection of New Varieties of Plants' (Global Economic Issue Publications, Intellectual Property Issue, paper No.9) 8.

32 Article 192 of the EIPL82/2002 reads:

A variety shall be considered new if, at the filing date of the application, the vegetation propagation of the variety was not sold or otherwise transmitted to third parties by the breeder or with his consent for the exploitation of the variety.

33 Eid Abedu AlMajeed, 'The Protection of New Varieties of Plants' (2002) 16 Journal of Legal and Economic Research 428, 435.(the author's translation)

عبدالمجيد، "حملة الاصناف النباتية الجديدة" مجلة العلوم القانونية والاقتصادية(2002)428-435.

33. Eid Abedu AlMajeed, 'The Protection of New Varieties of Plants' (2002) 16 Journal of Legal and Economic Research 428, 435.(the author's translation)]

34 Article 192 of the EIPL 82/2002.

35 Al Qalyubi (n 29).

36 Article 192 of the EIPL 82/2002.

37 Council of Ministers, Regulation (No.1366 of 2003) Implementing Regulations for Law No.82 of 2002 on the Protection of Intellectual Property Rights Books 1, 2, 3 and 4, available online at <www.wipo.int/wipolex/en/details.jsp?id=7299>.

38 Hans Morten Haugen, The Right to Food and the TRIPs Agreement with a Particular Emphasis on Developing Countries Measures for Food Production and Distribution (MartinusNijhoff Publishers 2007) 1, 271.

39 Queen Mary Intellectual Property Research Institute, 'The Relationship between Intellectual Property Rights (TRIPs) and Food Security' 2004 DG Trade of the European Commission, 730.

40 *ibid.*

41 *ibid.*

variety.⁴² Article 200 of the EIPL 82/2002 required an applicant to disclose the sources of plant genetic resources relied on to develop a new variety.⁴³ That Article further extended the disclosure of origin obligation to include traditional knowledge associated with genetic resources, requiring an applicant to acknowledge traditional knowledge that they could have used in developing the new variety.⁴⁴ In doing so, the EIPL 82/2002 postulated that an applicant should have acquired the genetic resources or related traditional knowledge in a legitimate manner.⁴⁵ The Executive Regulation (No.1366/2003) set out the process for obtaining the approval of the competent authority, and evidence of legitimate acquisition of genetic resources.⁴⁶ Accordingly, disclosure is required for applications that involve genetic resources, and for those which utilised traditional knowledge. In theory, non-compliance with the disclosure requirement could result in an application being not processed. But this is not the case because the plant Variety Office did not check compliance with the disclosure.

In discussing the nature of the disclosure of origin, some Egyptian scholars identify the disclosure of

origin obligation as one of the procedural requirements for the registration of a new variety of plant.⁴⁷ Characterising the disclosure requirement as a pure formality would mean that the obligation is expected only to apply during the processing of the application.⁴⁸ It is argued that the disclosure of origin has substantive and procedural aspects, and determining whether a specific requirement is procedural or substantive is not always clear as in practice they may overlap. However, non-compliance with substantive requirement relating to the entitlement of the applicant to apply for or to be granted the breeder's right may lead to revocation or transfer of the right.⁴⁹

Under the EIPL82/2002, the disclosure of origin is also part of the patentability requirements. To address the issue of misappropriation of genetic resources, Article 13 of the EIPL82/2002 establishes a disclosure of origin obligation stipulating that 'where the invention involves biological, plant or animal product, or traditional medicinal, agricultural, industrial or handcraft knowledge, cultural or environmental heritage, the inventor should have acquired the sources in a legitimate manner'.⁵⁰ The EIPL 82/2002 requires a patent applicant to provide evidence of the legitimate acquisition of the genetic resources or traditional knowledge used in the invention. The disclosure of origin requirement under Article 13 can be identified within the proof of legal acquisition version.⁵¹ Egyptian scholars also address the disclosure of origin within the procedural requirement for patents, but they do not explain why they address it as patent registration process. Dutfield argues that one of the practical advantages of linking the patent right to the

42 Article 200 of the EIPL82/2002 stated:

The breeder shall disclose the genetic sources relied on to develop the new plant variety. The protection of the new plant variety requires that the breeder has acquired that source by legitimate means under the Egyptian law. Such a requirement extends to traditional knowledge and experience accumulated among local communities the breeder could have on in his efforts to develop the new plant variety.

Likewise, the breeder who deals with Egyptian genetic sources, with a view to develop new varieties derived from the reformed, shall undertake to obtain the approval of the relevant competent administrative authorities. He shall also undertake to acknowledge the Egyptian traditional knowledge as sources to what he could have achieved using such knowledge and experience, through the disclosure of the Egyptian source the breeder benefited from, and by sharing the profits gained with the interested party, as prescribed in the regulations of this Law.

A register shall be established in the Ministry of Agriculture to include the genetic Egyptian plants, both wild and domesticated.

43 Al Qalyubi (n 29) 165-166.

44 Al Majeed (n 33) 428.

45 Article 200 of the EIPL 82/2002.

46 Articles 156-163 of the Executive Regulation (No.1366/2003) of the Egyptian Intellectual Property Legislation 82/2002.

47 Al Qalyubi (n 29) 730-731.

48 IGC/WIPO, 'Technical Study on Disclosure Requirements in Patent Systems related to Genetic Resources and Traditional Knowledge' (Study (No.3), IGC/WIPO, 2004) 47.

49 *ibid.*

50 Article 13 of the EIPL 82/2002 further requires a patent applicant, if the invention involves microorganisms, to deposit a live culture of the invention with the competent national authority.

51 Graham Dutfield, 'Thinking Aloud on Disclosure of Origin' (Quaker International Affairs Programme, Friends World Committee for Consultation, October 2005) 2-4.

legitimate acquisition requirement is to avoid making the test for patentability more complicated.⁵²

In the context of international law, the disclosure of origin obligation is originally proposed as an umbrella concept that encompasses various obligations on an applicant to disclose the origin of genetic resources and the legal framework of their acquisition.⁵³ The disclosure of origin obligation applies exclusively to biotechnological inventions and when genetic resources that found in *in situ* conditions, or held in *ex situ* collections are employed.⁵⁴ The obligation entails that a patent applicant in the field of biotechnology disclose the source of the genetic resources used in the development of the inventive activity as a raw material or a tool, the country of origin, and also provide evidence of legitimate acquisition of genetic resources or traditional knowledge.⁵⁵

The EIPL 82/2002 established a disclosure of origin obligation to ensure that its intellectual property system will support and give effect to policy interests that connected with the Convention on biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and their access and benefit sharing regimes. Thus, it can be argued that the disclosure of origin provision in the EIPL 82/2002 is in line with the position held by many of the developing countries in the World Trade Organization and the Intergovernmental Committee of the World Intellectual Property Organization (IGC/WIPO) which call for the creation of strong disclosure requirements in national laws in order to identify and

limit misappropriation of genetic resources and traditional knowledge.

In practice, Egypt was not able to implement such safeguards, and in 2007, a ministerial decree suspended the disclosure and benefit sharing conditions.⁵⁶ In addition, it suspended the creation of the official registration database of Egyptian varieties which was decided to be established in accordance with Article 200. The disclosure requirement lacks legal clarity because the EIPL 82/2002 specifies triggers for disclosure requirements, but it does not address the consequences of disclosure failure. Notably, the EIPL 82/2002 provides no definition to key terms of the disclosure requirements including the protected subject matter, i.e., genetic resources, genetic material, biological resources and related traditional knowledge.

However, under Law 26/2015, the disclosure requirement is deleted, and a breeder is no longer obligated to disclose the origin of genetic resources relied on to develop a new plant variety, neither to share their utilisation benefits with interested parties. This was in compliance with UPOV which rejects the introduction of such a requirement for plant variety protection. It can be argued that the lack of a disclosure provision in the Egyptian law could become an obstacle for the effective implementation of Convention on Biological Diversity (CBD) and ITPGRFA, and their access and benefit sharing regimes. It is optimistic to think that the UPOV system can ensure that the plant genetic material was legally obtained by a breeder. Tvedt et al write that plant variety law 'cannot be used to control whether the plant genetic material was legally obtained by a breeder, and the UPOV 91- based right cannot be regarded as an effective manner to establish legal certainty in this regard'.⁵⁷

4.3 The Benefit Sharing Requirement

The obligation to share the benefits arising from the utilisation of the country's genetic resources and

52 Dutfield describes three types of disclosure of origin requirement; voluntary disclosure; mandatory disclosure; and finally proof of legal acquisition. The latter requires a patent applicant to submit with their application official documentation from provider countries proving that genetic resources and associated traditional knowledge. Ibid 2.

53 *ibid.*

54 Jorge Cabrera Medaglia, 'The Relationship between the Access and Benefit Sharing International Regime and the Other International Instruments: The World Trade Organization and the International Union for the Protection of New Varieties of Plants' (2010) 10 (3) Sustainable Development Law and Policy 26.

55 Joshua D Sarnoff and Carlos Correa, 'Analysis of Options for Implementing Disclosure of Origin Requirements in Intellectual Property Applications' (United Nations Conference on Trade and Development, Seventh Meeting of the Conference of the Parties of the CBD, Geneva, UNCTAD/TED/2004/14)5-8.

56 Prime Ministerial Decree (No. 1241) in 2007.

57 Anja Christinck and Morten W Tvedt, 'The UPOV Convention, Farmers Rights and Human Rights: An Integrated Assessment of Potentially Conflicting Legal Frameworks' (Deutsche Gesellschaft Fur International Zusammenarbeit, Germany, 2015).

traditional knowledge is made in the EIPL 82/2002 which provided that an applicant 'shall disclose the genetic resources relied on to develop the new plant variety...and by sharing the profits gained with the interested party, as prescribed in the regulations'.⁵⁸ The scope of benefit sharing is extended to include 'traditional knowledge and experience accumulated among local communities'.⁵⁹ Accordingly, an applicant was obligated to share the benefit arising out of the utilisation of genetic resources or associated traditional knowledge with the provider.⁶⁰

Egypt is the first country in the Arab region to establish a benefit sharing mechanism. Authoritative Egyptian sources dealing with plant variety protection have commented on the benefit sharing requirement, considering it a procedural one.⁶¹ Categorising this requirement as substantive or procedural is difficult because it functions between two different legal regimes and policy systems (international environmental law and global trade law).

However, putting this obligation into practice was far from simple in Egypt as a provider country for several reasons. Firstly, the EIPL 82/2002 set a regime to regulate the utilisation of genetic resources and associated traditional knowledge. But it neither explained what 'access to plant genetic resources' means, nor 'the utilisation of genetic resources' and they both constitute key elements underlying the benefit sharing obligation. Also, the EIPL 82/2002 did not explain whether the protected traditional knowledge must be related to the genetic resources in order to be eligible for protection.

Law 26/2015 dismissed the benefit sharing obligation as a requirement for plant variety protection. Unless there is a law that deals with access to plant genetic

resources and benefit sharing, potential breeders will not be under any obligation to share benefits with Egypt.

5 BREEDERS' RIGHTS

Before its amendment, Article 194 of the EIPL 82/2002 limited the breeder's rights to the propagation material of the protected variety.⁶² It provided that a plant breeder 'shall have an exclusive right to the commercial exploitation of the protected variety in any form whatsoever',⁶³ confirming that the authorisation of breeders is only required with regard to the 'commercial exploitation' of the propagating material of protected varieties. This shows the adherence of the EIPL 82/2002 to the framework provided by the 1978 Act of the UPOV Convention, Article 5 of which defines acts that require the authorisation of the breeder as below:

- the production for purposes of commercial marketing
- offering for sale
- marketing

of the reproductive or vegetative propagating material as such of the variety.⁶⁴

62 Hossam Al Deen Al Sageer, 'The Protection of New Plant Varieties' (the WIPO National Training Workshop of Intellectual Property for Diplomats, WIPO/IP/DIPL/CAI/04/5, 2004)1, 23. (The author's translation)

حسام الدين الصغير، حلقة الويبو الوطنية التدريبية حول الملكية الفكرية للدبلوماسيين (المنظمة العالمية للملكية الفكرية مع معهد الدراسات الدبلوماسية، القاهرة، كانون الأول 2004)23.

63 Hossam Al Deen Al Sageer, 'The Protection of New Plant Varieties' (the WIPO National Training Workshop of Intellectual Property for Diplomats, WIPO/IP/DIPL/CAI/04/5, 2004)1, 23. (The author's translation)

64 Article 194 of the EIPL 82/2002 stated that the production, propagation, circulation, sale, marketing, importing exporting of propagation material shall not be allowed without the written consent of the variety breeder'.

64 Article 5 of UPOV 78.

58 Article 200 of the EIPL 82/2002.

59 Article 200 of the EIPL 82/2002.

60 Article 200 of the EIPL 82/2002 provided: 'Likewise, the breeder who deals with Egyptian genetic sources, with a view to develop new varieties derived therefrom, shall undertake to ... to acknowledge the Egyptian traditional knowledge as sources to what he could have achieved using such knowledge and experience, through the disclosure of the Egyptian source the breeder benefited from, and by sharing the profits gained with the interested party, as prescribed in the regulations of this Law'.

61 Al Qalyubi (n 29) 229-233.

However, Law 26/2015 broadly defines the breeder's right to cover the harvested seed of the protected varieties, stating that the authorisation of the breeder is required in respect of 'harvested material, including entire plants and parts of plants'.⁶⁵ By doing so, Law 26/2015 follows the legislative model of the 1991 Act of the UPOV Convention, which its Article 14.2 provides a breeder with rights exercisable over harvested material of the protected variety if the materials obtained through an authorised use of the propagating material.

The protection provided may give rise to concerns on the possibility of reusing farm saved seed by farmers without the prior authorisation of the breeder. In other words, the traditional agricultural practices of the Egyptian farmers of using parts of the previous harvest to produce the next could be prevented. As Egypt is party to the ITPGRFA, this would also impact the implementation of farmers' rights in Egypt, since the protection provided to breeders is a challenge to those elements of farmers' rights related to the practices for use of farm-saved seed when protected varieties are concerned. Article 9.3 of the ITPGRFA recognises the right of farmers⁶⁶ 'to save, use, exchange and

sell farm saved seed and other propagating material...'.⁶⁷

It can be observed that, before its amendment, the EIPL 82/2002 reaffirmed that the legal protection of the breeder's right is limited to propagating material, and does not include products made directly from harvested material of the protected varieties. The EIPL 82/2002 made it clear that the protection provided shall not prevent third parties from '[a]ctivities of use, commercial exploitation and consumption of crop material, prime and intermediate material and finished products, which are made or derived directly or indirectly from the crop material, whether the crop material is a plant or part thereof'.⁶⁸ Al Qalyubi argues that such activities, though being commercial, do not constitute an infringement of the breeder's right because they are merely tools for accessing products derived from protected varieties.⁶⁹

6 EXEMPTIONS TO BREEDERS' RIGHTS

This section continues the discussion about the amendments introduced to the breeder's rights in the Egyptian law.

6.1 Farmers Exemption

The EIPL 82/2002 excluded from the scope of the exclusive rights of breeders any acts done privately and for non-commercial purposes, including subsistence farmers. Under its Article 195.1, the authorisation of the breeder was not required in respect of '[n]on-commercial activities and use of the result of propagating material, by farmers on their own holdings for private propagating purposes'.⁷⁰

⁶⁵ Amended Article 194 of Law 26/2015 provides:

Subject to Articles 195 and 198 of this law, the following acts in respect of the propagating material of the protected variety shall require the authorization of the breeder:

1. production or reproduction (multiplication),
2. conditioning for the purpose of propagation,
3. offering for sale,
4. selling or other marketing,
5. exporting,
6. importing, stocking for any of the purposes mentioned in (i) to (vi), above.

The breeder may make his authorization subject to conditions and limitations.

The previous provisions of this Article shall apply to the work carried out harvested material,

Including entire plants and parts of plants, obtained through the unauthorized use of propagating material of the protected variety shall require the authorization of the breeder, unless the breeder has had reasonable opportunity to exercise his right in relation to the said propagating material.

⁶⁶ Sangeeta Shashikant and Francois Meienberg, 'International Contradictions on Farmers' Rights: The Interrelations between the International Treaty, its Article 9 on Farmers' Rights, and Relevant Instruments of UPOV and WIPO' (Third World Network, Berne Declaration, October, 2015) 6.

⁶⁷ See, Gerald Moore and Witlod Tymowski, Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture (the World Conservation Union, Gland and Cambridge, UK 2009).

⁶⁸ Article 195.5 of the EIPL 82/2002.

⁶⁹ Al Qalyubi (n 29) 742.

⁷⁰ Article 195.1 of the EIPL 82/2002.

Although Law 26/2015 excludes from the scope of the breeder's rights '[a]cts done privately and for non-commercial purposes', its Paragraph 2, corresponding to Article 15 of the 1991 UPOV Convention, restricts farmers' privileges to be 'within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder'.⁷¹ This would presumably allow subsistence farmers to use seed obtained from a protected variety for their own consumption. However, farmers will be allowed to reuse farm saved seed, as Dhar argues 'if the legitimate interest of the breeder are taken care of - the 'legitimate interests' being the royalty that the breeder should be paid'.⁷²

In addition, the farmers' exemption is about the use of the product of the harvest by the farmers on their own holdings, but it does not extend to seed produced on the holding of another farmer. This means that the rights that Egyptian farmers will enjoy, will not therefore include their traditional rights to save, exchange and sell farm-saved seed or propagating material obtained from a protected variety. The Explanatory Notes on exceptions to breeder's rights under the 1991 Act of the UPOV Convention states that parties need to consider the impact of exceptions on breeding and their economic impact on agriculture.⁷³ While advised by the Office of the UPOV in amending its law, the question is whether Egypt had the opportunity to consider these critical aspects in introducing plant breeder rights in a farmer dominated agricultural-system. In addressing farmers' needs, it is important to consider that the seed system in Egypt includes both the traditional (informal) and formal sectors, and that the Egyptian farmers relied on farm saved seed to meet their agricultural and food needs.⁷⁴

6.2 The Breeders' Exemption

The EIPL 82/2002 allowed breeders and researchers to have access to any registered variety for research and

breeding purposes without the authorisation of the breeder.⁷⁵ Its Article 195 provided significantly broad exceptions to the breeder's right, stating that the protection shall not prevent third parties from activities related to:⁷⁶

- 2- Experiments and scientific research purposes;
- 3- Breeding, cross-breeding and selection for the purpose of breeding new varieties;
- 4- Teaching and training purposes.

It is important to mention that Article 195 of the EIPL 82/2002 only provided for the protection of initial varieties of plants, and this implies that breeders have the right to make a new variety of plant through the use of protected varieties and to commercialise the new variety without the authorisation of the original breeders. However, the safeguarding of essentially derived varieties is one of the main features of Law 26/2015. According to amended Article 194, essentially derived varieties are eligible for plant breeder rights in the same way as for any initial variety. An essentially derived variety is defined in Law 26/2015 as the variety that is:⁷⁷

- predominantly derived from an initial protected variety.
- clearly distinguishable from the initial variety.
- conforms to the initial variety in essential characteristics, except for those differences resulted from the derivation act.

However, the inclusion of essentially derived varieties would impact the development of the breeding industry in Egypt. In a developing country like Egypt, deciding whether the new breeding result satisfies such complicated requirements is difficult. The wording of the protection requirements, under the UPOV Convention itself, as Wurtenberger argues, is unclear to determine whether the new breeding result is

⁷¹ Article 14.2 of UPOV 91.

⁷² Biswajit Dhar, 'Sui Generis Systems for Plant Variety Protection, Options under TRIPs Agreement: A Discussion Paper' (The Quaker United Nations Office, Geneva, April 2002) 15.

⁷³ The Explanatory Notes on exceptions to the Breeder's right under the 1991 Act of the UPOV Convention (UPOV/EXN/EDV/2, UPOV Council, 6 April 2017).

⁷⁴ El Hawary and Rizk (n 12) 11.

⁷⁵ Article 195.4 of the EIPL 82/2002.

⁷⁶ *ibid.*

⁷⁷ Article 194.2.3 of Law 26/2015.

essentially derived from the initial variety.⁷⁸ From a practical point of view, if two varieties are crossed, there would be no predominant derivation since the population resulting from the crossing are equally influenced by both parents.⁷⁹ Wurtenberger opines that the protection requirements for essentially derived variety suggest that the breeder contribution in developing a new variety seems not important, and as if the use of a protected variety always leads to an essentially derived variety.⁸⁰

Inequality is another point of concern, referring to the continued free flow of plant germplasm of farmers' varieties. While both initial and essentially derived varieties are protected, farmers' varieties, upon which the breeding of the commercial varieties depends, are free. Similarly, some critiques can be raised here, namely that in introducing the essentially derived variety provision, the benefits that a breeder could secure will be limited under this exemption because the commercialisation of the new breeding result will extend the right of the breeder of the initial variety beyond his variety to a new variety regardless of the number of its distinctive additional characteristics.

6.2.1 Other Public Policy Concerns Reflected in the EIPL82/2002

The EIPL 82/2002 has codified some interface rules to avoid restrictive property rights on plant genetic resources. It provides a compulsory licence regime in respect of plant varieties, and this exception is available under different circumstances in the Egyptian law. More important, other limitations to the breeder's right that are specific to Egypt are adopted under Article 199 of the EIPL 82/2002.⁸¹ According to that Article, the Minister of Agriculture is authorised, based on the recommendation of the Ministerial Committee, to limit some or all of the breeder's right if this is in the national interest. It provides two examples that could be the basis to restrict the breeder's right, and these when the protected variety has:⁸²

- harmful impacts on the environment, the safety of biodiversity, the agricultural sector, or the life or health of humans, animals or plants inside Egypt.
- economic or social impacts which impede agriculture, or is incompatible with the Egyptian society's belief and values.

These limitations set out on the breeder's right, however, have no legal basis in the UPOV. The 1991 Act of the UPOV Convention allows parties to grant compulsory licencing only for reasons of public interest and against equitable remuneration. There is no doubt that the protection of the natural environment, or human health as mentioned in Article 199(a) is a public interest, but it seems that such restrictions could be arbitrary in practice, as it seems there is no appeal set in the EIPL 82/2002 against such an administrative decision.

The limitation relating to the life and health of humans could be arbitrary in practice, as it is significantly broad, but it seems more justifiable if the close correlation between stability of a country such as Egypt and the state of food security is taken into account.⁸³ Recently, the heightening of food security concerns has increased and there has been a considerable reliance of Egyptians on state subsidised staple foodstuffs. A policy of subsidised bread has constituted a fundamental part of the strategies of the successive Egyptian governments.⁸⁴ Poor access to staple foods supplies has led to riots in 2008, and has been one of the main causes of political unrest in Egypt since 2011.⁸⁵

Under Law 26/2015, Article 196 permits the granting of compulsory licence in cases of public interest and under certain conditions, but it is unclear to what extent Egypt could take measures to balance the restrictions on farmers' access to seed and to ensure food security. There is legal uncertainty about Article 199 which authorises the Minister of Agriculture to directly restrict

78 Gert Wurtenberger, *Legal Perspectives on Essentially Derived Varieties* (Revista Eletrônica do IBPI – Nr. 8, 205).

79 *ibid.* 206.

80 *ibid.*

81 Article 199 of the EIPL 82/2002.

82 Al Qalyubi (n 29) 751-752.

83 Lauren power, 'Food Crises and Political Turmoil: The Impact of Egypt's Military Intervention on National Food Security' (Future Directions International, July 2013) 2-3.

84 *ibid.*

85 *ibid.*

the breeder's rights without identifying the circumstances under which the Minister will have this right.⁸⁶

7 CONCLUSION

This paper has examined how plant-related intellectual property right obligations are being enacted in Egypt to bring its national laws into harmony with international requirements on plant related innovations. Remarkable efforts have been made in Egypt to integrate plant-related concerns into legislative and policy frameworks in order to protect plant genetic resources for food and agriculture. Egypt has kept its agricultural sector outside the purview of the IPRs system. In 2002, when plant varieties protection law was introduced in the country for the first time in implementation of the TRIPs Agreement, the legislator adopted limitations to the breeders' rights based on different public interest considerations as an attempt to limit the exercise of monopoly by plant breeders. The EIPL 82/2002 adjusted plant-related intellectual property protection to the developmental needs of the country as the breeders' rights are drawn in a way that the basic right is confined to the production and commercialisation of propagating material of the protected variety, and the scope of exemptions to breeders' rights are comparatively broad.

In 2015, however, Law 26/2015 demonstrates the shift in emphasis in the objectives of the legislative policy in the country in less than two decades. It first strengthens breeders' rights by extending their rights to harvested material, and provides for the protection of essentially derived varieties within the scope of the exclusive rights of the breeders. The other area of major concern of Law 26/2015 is the reduced scope of exceptions to the breeders' rights, which could have

far-reaching impact on access to agricultural material and knowledge.

Law 26/2015 demonstrates how the critical aspects of introducing breeders' rights system in a farmer-dominated agricultural system were neglected, and how that has been against Egypt's obligation under the ITPGRFA. Indeed, the issue of farmers' rights arising from their contribution to the development and conservation of plant genetic resources has not been considered under Law 26/2015, though it had been an integral part of the debate on plant breeders' rights in the early attempts to bring agriculture within the ambit of intellectual property rights in 2000s. In addition to concerns related to addressing farmers' rights, the deletion of the requirements on disclosure of origin, and benefit sharing, highlights the need to restoring the balance of rights of both farmers and plant breeders.

Demands for 'bread freedom and social justice' of the 2011 revolution and the following uprisings have been a call for real development, one that encompasses social justice coupled with environmental sustainability and economic development. For a developing country like Egypt, policy, practical and development implications of acceding to free trade agreements especially those including TRIPs-plus commitments should be considered. Egypt may be able to take advantage of direct spillovers from developed countries, but it does not yet have a significant capacity for the management of agricultural research through the use of biotechnological tools.

⁸⁶ Article 199 of Law 26/2015 state that:

The Minister of Agriculture may, on the recommendation of the ministerial committee referred to in Article 196, limit the exercise of the breeder of all or some of his rights provided for in this Law in any manner with the aim of safeguarding the public interest.

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