

# The Economics of the Fair Compensation in Large-Scale Land Acquisition

Marcello De Maria<sup>\*,†</sup>

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\* PhD Student, School Agriculture, Policy and Development – University of Reading. Corresponding address: [m.demaria@pgr.reading.ac.uk](mailto:m.demaria@pgr.reading.ac.uk).

† Junior Researcher and Data Analyst – Land Portal Foundation. Corresponding address: [marcello.demaria@landportal.info](mailto:marcello.demaria@landportal.info).

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## I. Introduction

The debate over the *fair* or *just compensation* in land acquisitions is not only confined into legal disciplines. Indeed, the seminal model proposed by Blume, Rubinfeld and Shapiro<sup>1</sup> (hereinafter BRS model), framed around the last clause of the Fifth Amendment to the U.S. Constitution<sup>2</sup>, fuelled – and still fuels – the discussion over the *optimal compensation rule*. Indeed, they formally and explicitly introduced an economic efficiency perspective into a debate that was mainly driven by equity and justice concerns. Nevertheless, the existing economic literature addresses mainly the case of takings for public purposes, thus focusing on the domestic level<sup>3</sup> and on the expropriation of individual private property under the English and the American common law tradition. Even when the focus shifts on the land assembly problem<sup>4</sup> the existing literature mainly refers to high-income countries. Only occasionally the economic analysis includes explicitly the perspective of rural poor and displaced farmers<sup>5</sup> in developing countries, but to the best of my knowledge no economic model for fair compensation under informal or customary tenure regimes exists. Yet, the recent wave of transnational Large-Scale Land Acquisitions (LSLAs) requires a new specific theoretical framework for the *fair compensation* issue that goes beyond national borders and considers a different range of actors, behaviours, tenure regimes and outcomes. This contribution aims to fill this gap by developing a simple yet original model for the *fair compensation* in the context of transnational land deals and by critically evaluating the results from the model in relation with the existing literature and the empirical evidence.

In spite of the fast growing literature analysing the variety of ‘*spaces*’ affected by international land deals<sup>6</sup>, the process of ‘*commodification*’ of land embedded in the LSLAs phenomenon has not had a prominent role in economic theory. Indeed, economists have generally neglected the possibility that land – or more precisely the range of rights associated

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<sup>1</sup> Blume, L., Rubinfeld, D. L., and Shapiro, P., ‘The Taking of Land: When Should Compensation be Paid?’, *The Quarterly Journal of Economics*, Vol. 99, No.1, 1984, pp. 71–92.

<sup>2</sup> The last clause of the Fifth Amendment to the U.S. Constitution, also known as the ‘takings clause’, balances the power of the eminent domain with the need for just compensation for the private owner and states: “nor shall private property be taken for public use, without just compensation”.

<sup>3</sup> See Farber, D. A., ‘Public Choice and Just Compensation’, *Constitutional Commentary*, Vol. 9, No. 2, 1992, pp. 279–308; Fischel, W. A., and Shapiro, P., ‘Takings, Insurance, and Michelman: Comments on Economic Interpretations of “Just Compensation” Law’, *The Journal of Legal Studies*, vol. 17, No. 2, 1988, pp. 269–293; Fischel, W. A., and Shapiro, P., ‘A Constitutional Choice Model of Compensation for Takings’, *International Review of Law and Economics*, Vol. 9, 1989, pp. 115–128; Miceli, T. J., and Segerson, K., ‘Regulatory Takings: When Should Compensation Be Paid?’, *The Journal of Legal Studies*, Vol. 23, No. 2, 1994, pp. 749–776; Miceli, T. J., and Segerson, K., ‘Regulatory Takings’, in J. M. Duke and J. Wu (Eds.), *The Oxford Handbook of Land Economics*, New York: Oxford University Press, 2014, pp. 668–697; Nosal, E., ‘The taking of land: Market value compensation should be paid’, *Journal of Public Economics*, Vol. 82, No. 3, 2001, pp 431–443.

<sup>4</sup> Duke, J. M., ‘The Eminent Domain and the Land Assembly Problem’, in J. Duke and J. Wu (Eds.), *The Oxford Handbook of Land Economics*, New York: Oxford University Press, 2014, pp. 698–722.

<sup>5</sup> Ghatak, M., and Mookherjee, D., ‘Land acquisition for industrialization and compensation of displaced farmers’, *Journal of Development Economics*, Vol. 110, 2014, pp 303–312.

<sup>6</sup> See, e.g., Anseeuw, W., Boche, M., Breu, T., Giger, M., Lay, J., Messerli, P., and Nolte, K., *Transnational Land Deals for Agriculture in the Global South. Analytical Report based on the Land Matrix Database*, Bern/Montpellier/Hamburg: CDE/CIRAD/GIGA, 2012; Rulli, M. C., Saviori, A., & D’Odorico, P., ‘Global land and water grabbing’, *Proceedings of the National Academy of Science of the United States of America*, Vol. 110, No. 3, 2012, pp. 892–897; Behrman, J., Meinzen-Dick, R., Quisumbing, A., Peterman, A., Behrman, J., & Osorio, M., ‘The gender implications of large-scale land deals’, *The Journal of Peasant Studies*, Vol 39, No. 1, 2012, pp. 49–79; Borrás, S. M., & Franco, J. C., ‘Global land grabbing and trajectories of Agrarian change: A preliminary analysis’, *Journal of Agrarian Change*, Vol. 12, No. 1, 2012, pp. 34–59; Giovannetti, G., & Ticci, E., ‘Determinants of biofuel-oriented land acquisitions in Sub-Saharan Africa’, *Renewable and Sustainable Energy Reviews*, Vol 54, 2016, pp. 678–687.

to its use and access – could be an internationally traded commodity<sup>7</sup>. In addition, the lack of transparency surrounding the negotiation process<sup>8</sup> contributes to the lack of complete, reliable and up-to-date information on transnational land deals. Nevertheless, the unanimous recognition of the global relevance of the LSLAs phenomenon, coupled with the snowballing interest of researchers, civil society, grassroots organizations, NGOs, governmental bodies and international institutions, as well as with the media exposure of some of the most controversial deals, stimulated a global collaborative effort of data collection, validation and dissemination. As a consequence, the evidence on the LSLAs drivers, trends, features is becoming increasingly available and robust.

Transnational land deals are not targeting only *terra nullius*. Indeed, more than a half of the investors' interest is directed towards relatively highly populated areas which were already utilised as cropland<sup>9</sup> and the destination countries tend to be characterised by a weak level of tenure security<sup>10</sup>. This is often the case when traditional customary tenure regimes of local communities and indigenous populations coexists – but are not necessarily formally recognised by national laws, nor mapped in cadastral registries – alongside with other official forms of tenure<sup>11</sup>. In such context it is not surprising that the increasing pressure over global land reserves revealed by LSLAs triggered a series of land disputes and conflicts between local populations, national governments and international investors, leading in some cases to extreme consequences such as displacement, dispossession and forced evictions.<sup>12</sup>

Article 32 of the *United Nations Declaration on the Rights of Indigenous Peoples*<sup>13</sup> states:

“1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.

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<sup>7</sup> De Maria, M., ‘Trading the Untradeable: A Gravity Model for Large-Scale Land Acquisitions’, *Paper presented at the 2015 Annual World Bank Conference on Land and Poverty*, March 23-27, 2015, Washington, DC.

<sup>8</sup> See, e.g., Cotula, L., *Land deals in Africa: What is in the contracts?*, London: International Institute for Environment and Development (IIED), 2011.

<sup>9</sup> See Nolte, K., Chamberlain, W.; Giger, M., *International Land Deals for Agriculture. Fresh insights from the Land Matrix: Analytical Report II*. Bern, Montpellier, Hamburg, Pretoria: Centre for Development and Environment, University of Bern, Centre de Coopération Internationale en Recherche Agronomique pour le Développement, German Institute of Global and Area Studies, University of Pretoria, Bern Open Publishing, 2016.

<sup>10</sup> See, e.g., Anseeuw *et al*, *supra* note 6; Arezki, R., Deininger, K., and Selod, H., ‘What drives the global “land rush”?’’, *World Bank Economic Review*, Vol. 29, No. 2, 2015, pp. 207–233.

<sup>11</sup> De Schutter, O., ‘The Green Rush: The Global Race for Farmland and the Rights of Land Users’, *Harvard International Law Journal*, Vol. 52, No. 2, 2011, pp. 504–559; De Schutter, O., ‘How not to think of land-grabbing: three critiques of large-scale investments in farmland’, *Journal of Peasant Studies*, Vol. 38, No. 2, 2011, pp. 249–279.

<sup>12</sup> Meyer, G., ‘The Great Land Rush: Investors face conflict in quest for farms. Canadian pension fund’s purchase led to an outcry’, *Financial Times*, 2 March 2016, <https://www.ft.com/content/84a646a0-dedc-11e5-b67f-a61732c1d025> (accessed 2 November 2016); Nolte, K., and Voget-Kleschin, L., ‘Consultation in large-scale land acquisitions: An evaluation of three cases in Mali’, *World Development*, Vol. 64, 2014, pp 654–668; The Oakland Institute, *Unheard Voices: The Rights Impact of Land Investments on Indigenous Communities in Gambella*, 2013, Oakland: The Oakland Institute, available at: [http://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI\\_Report\\_Unheard\\_Voices.pdf](http://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI_Report_Unheard_Voices.pdf) (accessed 28 October 2016); Twomey, H., ‘Displacement and dispossession through land grabbing in Mozambique The limits of international and national legal instruments’, *Working Paper*, No. 101, 2014, Oxford: The Refugee Studies Centre (RSC); Woods, K., ‘Commercial Agriculture Expansion in Myanmar: Links to Deforestation, Conversion Timber, and Land Conflicts’, *Forest Trends Report Series*, March 2015, Washington, D.C.: Forest Trends and UK Aid.

<sup>13</sup> GA Res. 61/295, 13 September 2007

2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact”

This formulation, which explicitly refers to land, is crucial and grants to indigenous population the right to *Free, Prior and Informed Consent* (hereinafter FPIC), as well as the right to *fair compensation* for a wide range of adverse impacts, besides the pure economic ones. Remarkably, these rights are recognized in the general context of development strategies. This element can suggest that the field of application of FPIC and fair compensation can be widened beyond the scope of the eminent domain.

The FAO *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*<sup>14</sup> (hereinafter simply VGGT) broadens the perspective, taking into account not only indigenous people, but also other communities with customary tenure systems<sup>15</sup>, with explicit mentions to informal tenure systems<sup>16</sup>. Similarly, *Performance Standard 5. Land Acquisition and Involuntary Resettlement*<sup>17</sup> proposed by the International Finance Corporation (IFC) of the World Bank Group emphasizes the importance of *fair compensation* and FPIC in land acquisition.

Despite the growing international consensus around fair compensation and FPIC in land acquisitions and acknowledging the limitations of the available information and data, the existing evidence suggests that local communities’ participation to the LSLAs negotiation process is limited<sup>18</sup> and that fair compensation is far from being commonly achieved<sup>19</sup> in transnational land deals. It is then legitimate to ask whether the fair compensation for local communities and indigenous people is achievable at all in LSLAs and if it can be efficiently combined with the interests of foreign investors and host governments. Aiming at answering this question, this work presents a simple yet original theoretical model for fair compensation in transnational land deals. The findings from the model are interpreted in the light of the existing literature and empirical evidence, in order to identify the main factors contributing to the success or to the failure of the negotiation process in the context of transnational land deals.

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<sup>14</sup> FAO, *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*, 2012 Rome: FAO.

<sup>15</sup> See *Id.*, Part 3, Section 9, pp. 14-16.

<sup>16</sup> See *id.*, Part 3, Section 10, pp. 16-17.

<sup>17</sup> IFC (International Finance Corporation), *Performance Standard 5. Land Acquisition and Involuntary Resettlement*, Performance Standards on Environmental and Social Sustainability, 2012. Available at [http://www.ifc.org/wps/wcm/connect/3d82c70049a79073b82cfaa8c6a8312a/PS5\\_English\\_2012.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/3d82c70049a79073b82cfaa8c6a8312a/PS5_English_2012.pdf?MOD=AJPERES) (Accessed 7 October 2016); See also IFC, *Guidance note 5. Land Acquisition and Involuntary Resettlement*, Performance Standards on Environmental and Social Sustainability, 2012. Available at [https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/Updated\\_GN5-2012.pdf?MOD=AJPERES](https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/Updated_GN5-2012.pdf?MOD=AJPERES) (Accessed 7 January 2017).

<sup>18</sup> Vermeulen, S., and Cotula, L., ‘Over the heads of local people: consultation, consent, and recompense in large-scale land deals for biofuels projects in Africa’, *Journal of Peasant Studies*, Vol. 37, No. 4, 2010, pp. 899–916; See also Nolte, K., and Voget-Kleschin, L., ‘Consultation in large-scale land acquisitions: An evaluation of three cases in mali’, *World Development*, Vol. 64, pp. 654–668.

<sup>19</sup> See Nolte *et. Al.*, *supra* note 9, pp. 40-42.

## II. Literature Review

### II.1. The Impact of LSLAs on Local Populations and the Fair Compensation Issue

The features of LSLAs suggest that the ownership of land is becoming increasingly mobile and that an international market for land is in the making. Recently updated data from the *Land Matrix Initiative*<sup>20</sup> suggests that 1,416 transnational land deals corresponding to 77.5 million hectares – an area that is almost equal to the total surface of Turkey – have been concluded since 2000 or are currently under negotiation. Africa is the most targeted continent and destination countries are often characterised by low income levels, high incidence of small-scale farmers, weak tenure security and food insecurity<sup>21</sup>. In general, given the variety of values attached to land by different stakeholders, trading land internationally has proven to be more complex than trading a simple private commodity. For this reason, the debate over the impact of LSLAs is still very controversial. On the one hand, this wave of land-related investment has been hailed as a development opportunity for low and middle-income countries where agricultural activities, traditionally affected by chronic underinvestment, are important in terms of GDP, occupation and livelihood; On the other hand, LSLAs have been labelled as *land grabbing*, that is a fierce global competition for the control of rent position over natural resources – such as forestland, farmland and water – that is fought over the head of local populations.<sup>22</sup>

Among the many debated aspects, the impact on local rural communities affected by the deals is receiving considerable attention. Given the complex and diversified nature of the investments originating LSLAs and the intertwined nature of the linkages between land and rural people, it is difficult to assess the actual impacts of the phenomenon on the livelihood of the affected populations. In their original contribution, Davis *et Al.*<sup>23</sup> offer a preliminary aggregated quantification of the magnitude of livelihood effects induced by LSLAs. In particular, considering a sample of 28 countries, the authors estimated that a total of 12 million individuals have lost their income due to LSLAs. Other studies adopting more qualitative approaches reinforce the concerns over the risks of LSLAs, documenting adverse impacts on local populations. For instance, Kachika<sup>24</sup>, in his report funded by the Oxfam International Pan African Programme, analyses a wide range of negative effects induced by transnational land acquisitions on vulnerable groups of rural poor, such as women, pastoralist communities and small scale farmers. In particular, the report focuses on land acquisitions in six African countries – namely Ethiopia, Ghana, Mali, Mozambique, Senegal and Tanzania – and includes also information over the land disputes between the Maasai pastoralist people, the Tanzanian

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<sup>20</sup> See Nolte *et. Al.*, *supra* note 9.

<sup>21</sup> See, e.g., Anseeuw *et Al.*, *supra* note 6; Nolte *et. Al.*, *supra* note 9; Arezki *et Al.*, *supra* note 10; Giovannetti and Ticci, *supra* note 6.

<sup>22</sup> The dualistic and controversial interpretation of the LSLAs phenomenon is recurrent and often is so important that is explicitly mentioned even in the title of many publications on the topic. See, e.g., Cotula, L., Vermeulen, S., Leonard, R., and Keeley, J., *Land grab or development opportunity? Agricultural Investment and International Land Deals in Africa*, London/Rome: IIED/FAO/IFAD, 2012; Deininger, K., ‘Challenges Posed by the New Wave of Farmland Investment’, *Journal of Peasant Studies*, Vol. 38, No. 2, pp. 217–247; Deininger, K., Byerlee, D., Lindsay, J., Norton, A., Selod, H., & Stickler, M. *Rising Global Interest in Farmland*, K. Deininger & D. Byerlee, (Eds.), Agriculture and Rural Development Series, Washington, DC: The World Bank, 2010.

<sup>23</sup> Davis, K.F., D’Odorico, P. & Rulli, M.C., ‘Land grabbing: a preliminary quantification of economic impacts on rural livelihoods’, *Population and Environment*, Vol. 36, No. 2, pp. 180-192.

<sup>24</sup> Kachika, T., *Land grabbing in Africa: A review of the impacts and the possible policy responses*, 2012, Oxford: Oxfam International Pan Africa Programme.

government and foreign investors.<sup>25</sup> These disputes, which received a considerable media coverage and made the headlines for few years<sup>26</sup>, are of particular interests because Tanzania arguably has one of the most complete and advanced set of legal provisions when it comes to land tenure. Indeed, Tanzanian laws recognize the right to compensation for landholders under both customary and informal tenure regimes.<sup>27</sup>

The case of the forced removal of Maasai tribes from their villages in Loliondo (Arusha Region, Tanzania) was triggered by the expansion of the land concession for a game reserve granted by the government to the United Arab Emirates based Ortello Business Corporation. These facts related to this situation reached the attention of the United Nations Special Rapporteur on the Human Rights and Fundamental Freedoms of Indigenous Peoples, James Anaya. In his communications<sup>28</sup>, the rapporteur requested the government to respond to allegations regarding the use of violence – including rapes and burning of several *bomas* (Maasai traditional shelters) – during the eviction ordered with a letter dated 20 May 2009 from the Executive Director's Office of the Ngorongoro District.<sup>29</sup> According to the Rapporteur:

“Government representatives admit the burning of *bomas*, claiming that it was done to prevent residents from resettling in the villages from which they were evicted. The 20 May 2009 letter from the Executive's Office ordering the evictions asserts that the reasons for evicting the pastoralists are environmental degradation from agriculture, unsustainable tree cutting and the establishment of permanent *bomas* within the hunting area. The letter also forbids farming activities from occurring within the hunting block”.<sup>30</sup>

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<sup>25</sup> *Id.*, box 15, p. 48.

<sup>26</sup> See, e.g., Martin, R., ‘Hunted down’, *The New Internationalist*, December 2009, available at <https://newint.org/columns/currents/2009/12/01/tanzania/> (Accessed 12 January 2017); Smith, D., ‘Tanzania ditches plan to evict Masai for Serengeti wildlife corridor’, *The guardian*, 7 October 2013, available at <https://www.theguardian.com/world/2013/oct/07/tanzania-masai-serengeti-wildlife-corridor> (accessed 12 January 2017); Patinkin, J., ‘Tanzania's Maasai battle game hunters for grazing land’, *BBC News*, 18 April 2013, available at <http://www.bbc.co.uk/news/world-africa-22155538> (accessed 30 January 2017); Ogunlesi, T., ‘Tanzania's Maasai prefer death to eviction. Maasai tribe's eviction is part of a larger land-grabbing trend across Africa.’, *Aljazeera*, 23 November 2013, available at <http://www.aljazeera.com/indepth/opinion/2014/11/tanzania-masai-prefer-death-e-2014112254354523508.html>Minority (accessed 30 January 2017); Rights Group (MRG), ‘MRG deeply disappointed by Arusha Court land rights judgment against Loliondo Maasai’, press release, 28 October 2015, available at <http://minorityrights.org/2015/10/28/mrg-deeply-disappointed-by-arusha-court-land-rights-judgment-against-loliondo-masai/> (accessed 30 January 2017).

<sup>27</sup> See United Republic of Tanzania, *The Land Act*, 1999, available at: <http://faolex.fao.org/docs/pdf/tan23795.pdf> (accessed 28 January 2017); United Republic of Tanzania, *Village Land Act*, 1999, available at: <http://faolex.fao.org/docs/pdf/tan53306.pdf> (accessed 28 January 2017); United Republic of Tanzania, *The Land (Assessment of the Value of Land for Compensation) Regulations*, 2001, available at: <http://faolex.fao.org/docs/pdf/tan28341.pdf> (accessed 28 January 2017); United Republic of Tanzania, *Village Land Regulations*, 2002, available at: <http://faolex.fao.org/docs/pdf/tan28349.pdf> (accessed 28 January 2017); See also the *VGGT indicators dataset* created by Nicholas Tagliarino and available at <https://landportal.info/book/dataset/NKT-UN-VoluntaryGuidelines-Principle16> (accessed 28 January 2017); For a detailed overview of *VGGT indicators dataset* for Tanzania, see <https://landportal.info/book/countries/TZA> (accessed 28 January 2017).

<sup>28</sup> A/HRC/15/37/Add.1, available at: <http://www2.ohchr.org/english/bodies/hrcouncil/docs/15session/A.HRC.15.37.Add.1.pdf> (accessed 2 February 2017).

<sup>29</sup> Ref. No. NGOR/DC/M. 1/94.

<sup>30</sup> *Id.*, §424, h.

The Government's position must be interpreted in the light of the paradigm shift in the wildlife policy of Tanzania, from the *1998 Wildlife Policy*<sup>31</sup> centred on local communities through the creation of Wildlife Management Areas at the village level, to the *2007 Wildlife Policy*<sup>32</sup>, which adopted a more centralised approach and put increasing emphasis on State-level management of natural resources. According to Benjaminsen *et Al.*<sup>33</sup> this reduced the space for the participation to both management decisions and benefit sharing for local populations. Enacted in 2009, the *Wildlife Conservation Act*<sup>34</sup> strengthened the new paradigm, on the one hand reinforcing the crucial role of wildlife and tourism for the development of Tanzania, and, on the other hand, increasing the influence of central authorities and governmental bodies.

The Rapporteur, indeed, framed the Loliondo episode in the light of the broader policy shift, arguing that:

“Although Government representatives claim that the evictions took place as a result of environmental concerns related to the conservation of the Loliondo Game Control Area, the circumstances surrounding the evictions indicate that the evictions were in fact part of a larger Government policy favouring the interests of private enterprises engaged in conservation tourism and wildlife hunting, principally the Ortello Business Corporation, over the rights of indigenous peoples, particularly the Maasai pastoralists. The Government carried out the evictions in order to pave the way for the passage of the Wildlife Conservation Act of 2009, and the conversion of the Loliondo Game Control Area into a game reserve, a move which would further restrict the land use and occupancy rights of Maasai pastoralists use and occupancy rights of Maasai pastoralists”.<sup>35</sup>

In addition, in his communication the rapporteur notes that:

“Like other property interests, the property rights of indigenous peoples based on their traditional land and resource tenure may be subject to limitations for legitimate, non-discriminatory public purposes in accordance with law. However, as emphasized by the African Commission in the Endorois case, a much higher threshold than ordinarily required must be met, and in the most compelling of circumstance, for justifying significant limitations on the rights to lands and resources of indigenous peoples, where those rights are associated with the most important and fundamental human rights, including the right to life, food, the right to self-determination, to shelter, and the right to exist as a people”.<sup>36</sup>

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<sup>31</sup> United Republic of Tanzania, *The Wildlife Policy of Tanzania*, Ministry of Natural Resources and Tourism, 1998, Dar es Salam: Government Printer, available at:

[http://www.mnrt.go.tz/uploads/tanzania\\_wildlife\\_policy\\_1998.pdf](http://www.mnrt.go.tz/uploads/tanzania_wildlife_policy_1998.pdf) (accessed 10 February 2017).

<sup>32</sup> United Republic of Tanzania, *The Wildlife Policy of Tanzania*, Ministry of Natural Resources and Tourism, 2007, Dar es Salam: Government Printer, available at: [http://www.tnrf.org/files/E-URT\\_POLICIES\\_National\\_Wildlife\\_Policy\\_2007.pdf](http://www.tnrf.org/files/E-URT_POLICIES_National_Wildlife_Policy_2007.pdf) (accessed 10 February 2017).

<sup>33</sup> See, e.g., Benjaminsen, T. A., Goldman, M. J., Minwary, M. Y., and Maganga, F. P., ‘Wildlife management in Tanzania: state control, rent seeking and community resistance’, *Development and Change*, Vol 44, No. 5, 2013, pp. 1087-1109.

<sup>34</sup> United Republic of Tanzania, *The Wildlife Conservation Act*, 2009, available at [file:///Users/marcello/Downloads/05-2009\\_The\\_Wildlife\\_Conservation\\_Act,\\_2009\\_\(1\).pdf](file:///Users/marcello/Downloads/05-2009_The_Wildlife_Conservation_Act,_2009_(1).pdf) (accessed 5 February 2017).

<sup>35</sup> *Supra* note 28, §424, j, p. 175.

<sup>36</sup> *Supra* note 28, §443, pp. 180-181. Concerning the reference to the Endorois case, see African Commission On Human and Peoples' Rights (ACHPR), 276/03 - *Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v. Kenya*, 2010.

A similar view is adopted also in a recent ethnological study<sup>37</sup> that analyses the impacts on the Maasai people induced by the recent wave of foreign private investments for tourism development and biodiversity conservation in the area of the Serengeti National Park. The volume includes, among others, a case study on the land dispute in Loliondo<sup>38</sup>. Interestingly, the author argues that negative effects of foreign land acquisitions are not limited to the loss of income, because the loss of rights and access to land undermines also the conservation of traditional knowledge and spiritual practices, which can ultimately affect the Maasai people identity.

More generally, the multiplication of the episodes of displacements and dispossessions induced by transnational land acquisitions<sup>39</sup> can be understood in the light of the estimates contained in a recent study conducted by the Rights and Resources Initiative (RRI):

“Communities and Indigenous Peoples are estimated to hold as much as 65 percent of the world’s land area under customary systems, yet many governments formally recognize their rights to only a fraction of those lands. This gap – between what is held by communities and what is recognized by governments – is a major driver of conflict, disrupted investments, environmental degradation, climate change, and cultural extinction”.<sup>40</sup>

Vermeulen and Cotula<sup>41</sup> see the solution to displacement and dispossession in a three folded negotiation process based on *consultation*, *consent* and eventually *compensation*. This view echoes the FPIC principle, which is seen as the prerequisite for the achievement of a fair compensation when no other option is available. However, the rights to FPIC and fair compensation – formalized at the international level in the UN *Declaration on the Rights of Indigenous Peoples*<sup>42</sup> and included in the VGGT as well as in the IFC *Performance Standards* – often is not reflected in national laws and regulations<sup>43</sup>. In addition, as previously highlighted when describing the Loliondo dispute, even when the communities with customary and informal rights over land are entitled to, the application of the FPIC and fair compensation is not automatic.

Of course, not all LSLAs related investments affect local communities and, when it is the case, not all the impacts are negative. Positive effects<sup>44</sup> can include job creation, increase of

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<sup>37</sup> Gardner, B., *Selling the Serengeti: The Cultural Politics of Safari Tourism*, Athens: University of Georgia Press, 2016.

<sup>38</sup> *Id.*, Chapter 4.

<sup>39</sup> See, e.g., Feldman, S., and Geisler, C., ‘Land expropriation and displacement in Bangladesh’, *Journal of Peasant Studies*, Vol. 39, No. 3–4, 2012, pp 971–993; The Oakland Institute, *Irresponsible Investment. Agrica’s Broken Development Model In Tanzania*, 2015, available at: [https://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI\\_Report\\_Irresponsible\\_Investment.pdf](https://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI_Report_Irresponsible_Investment.pdf) (accessed 14 October 2016); The Oakland Insitute, *supra* note 12; Meyer, *supra* note 12; Twomey, *supra* note 12; Woods, *supra* note 12; Kachika, *supra* note 24; Gardner, *supra* note 36.

<sup>40</sup> RRI, *Who Owns the World’s Land? A global baseline of formally recognized indigenous and community land rights*, 2015, Washington, DC: RRI, available at: [http://www.rightsandresources.org/wp-content/uploads/GlobalBaseline\\_web.pdf](http://www.rightsandresources.org/wp-content/uploads/GlobalBaseline_web.pdf) (accessed 20 September 2016).

<sup>41</sup> Vermeulen and Cotula, *supra* note 18.

<sup>42</sup> *Supra*, note 13.

<sup>43</sup> See Tagliarno, N. K., *Encroaching On Land and Livelihoods: How National Expropriation Laws Measure Up Against International Standards*, Working Paper, Washington, DC: Rights and Resources Initiative, available at: <http://www.wri.org/publication/encroaching-on-land-and-livelihoods> (accessed 21 September 2016).

<sup>44</sup> See Deininger *et Al.*, *supra* note 22; See also Liu, P., ‘Impacts of Foreign Agricultural Investment on Developing Countries: Evidence from Case Studies’, *Working Paper*, FAO Commodity and Trade Policy Research Working Paper, No. 47, 2014, Rome: FAO; Zhan, J., Mirza, H., and Speller, W., ‘The Impact of Larger Scale Agricultural

agricultural productivity and technological spillovers, as well as the creation of schools, healthcare facilities and infrastructures – which are often required by the land lease contract itself. However, the literature revised so far suggests that the risks can overcome the benefits, especially when local community are socially, politically and economically marginal. Therefore, the challenge is not to ban all land acquisitions and foreign investments, but to attract only those investments that can potentially produce benefits without harming the wellbeing of indigenous populations and local communities.

## II.2. To Compensate or not to Compensate? The Optimal Compensation Rule

Professor James W. Ely, in his volume *Property rights in the colonial era and early republic*<sup>45</sup>, dates the idea of compensation back to Clause 28 of the 1215 Magna Carta. He suggests also that compensation was a common practice in the context of English and American common law even before the formalization of ‘*just compensation*’ with the Takings Clause in the Fifth Amendment to the U.S. Constitution.<sup>46</sup> However, it was only in the mid-eighties of last century that the quest for the determination of the optimal rule for just compensation was formalized also using rigorous economic modelling.

In general, the economic debate over the optimal compensation rule ranged – and still ranges – between two extreme positions: the so-called *zero compensation principle* and the *full compensation rule*, which is often referred also as the *full market value rule*. The *zero compensation* approach originally appeared in 1984, as a corollary of the BRS model.<sup>47</sup> The main justification for the idea that a null compensation is optimal is to be found in the moral hazard of the land owner overinvesting in land that is at risk of expropriation. In other words, a private owner that comes to know that his land may be taken for public purpose have the incentive to invest in his land more than he would have done otherwise, so as to increase the market price of land and therefore inflating the value of the compensation he is entitled to.

The controversial nature of the BRS model corollary stimulated an intense debate. Fischel and Shapiro<sup>48</sup>, adopting a *public choice* perspective, suggested that the optimal compensation rule depends upon the nature of the government. In particular, the *zero compensation rule* would be a feasible option in the case of a benevolent – also known as *Pigouvian* – government or, conversely, when the requirement of a compensation would not operate as a deterrent for a non-benevolent government; however, in the case of a majoritarian government, some positive compensation – but not necessarily equal to the market value – would be the optimum, limiting the excessive expropriation of land operated by the majority at the expense of the minority. This point might be of particular interest in the context of LSLAs targeting countries with authoritarian government.

At the beginning of the millennium, Nosal<sup>49</sup> revived the idea that the optimal compensation has to be calculated looking at the market value, that is the price that private investors would pay in the free market when buying land. In particular, he developed a model based on a *tax-*

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Investments on Communities in South East Asia: A First Assessment’, in Gironde, C., Golay, C. and Messerli, P. (eds.), *Large-Scale Land Acquisitions: Focus on South-East Asia*, International Development Policy series No. 6, Part II, Chapter 4, , pp. 81–107, 2015, Boston: Brill-Nijhoff.

<sup>45</sup> Ely, J., *Property Rights in the Colonial Era and Early Republic*. New York: Garland Publications.

<sup>46</sup> See note 2.

<sup>47</sup> *Supra* note 1.

<sup>48</sup> Fischel, W. A., & Shapiro, P., ‘A Constitutional Choice Model of Compensation for Takings’, *International Review of Law and Economics*, vol. 9, No. 2, 1989, pp. 115–128.

<sup>49</sup> Nosal, E., ‘The taking of land: Market value compensation should be paid’, *Journal of Public Economics*, Vol. 82, No. 3, 2001, pp. 431–443.

*and-compensation* scheme, where the average market value of land, in equilibrium, constitutes the optimal redress for the private owner whose land is under expropriation.

More recently, Miceli and Segerson<sup>50</sup> used a different approach based on a bargaining model to study the optimal compensation rule in the light of a private land assembly problem. In particular, they built a model in which a developer wants to buy different plots for a large-scale development project. According to this model, holdouts are a significant risk in the absence of the threat of expropriation, because they can delay the project, thus generating additional costs for the investor.

In general, the variety of visions over the optimal compensation rule briefly reviewed in these section can be explained with the words of Hermalin: “there is more than one efficient rule for any given takings situation. One can, then, choose among these efficient rules based on the moral (i.e., political or philosophical) issues of the specific situation”.<sup>51</sup> This sentence is particular important for the object of the present analyses. Indeed, the issue of the fair compensation in transnational land deals constitutes a very peculiar problem, especially if compared with the background in which the efficiency of the just compensation is traditionally framed, namely the taking clause of the Fifth Amendment to the U.S. Constitution and, more generally, the Anglo-American Common Law tradition. As stated in the introduction, the peculiar nature of LSLAs requires a new specific theoretical framework. Indeed, transnational land deals, introduces a third player in a scene that is usually characterised by the dualism between the central authority (e.g. the Government) and the private owner of land (e.g. the landlord). Data from the *Land Matrix Initiative*<sup>52</sup> suggests that transnational land deals are mainly moved by the private interest of foreign investors, being private companies, investment funds and individual entrepreneurs – or *join ventures* involving among others the above mentioned subjects – the great majority of investors behind LSLAs. The government, rather than being the main economic subject proposing the investment, acts more at the policy and normative levels, attracting foreign investors, defining the general framework of the national and local development and determining the rules under which the land deal takes place. In addition, especially when land deals affect local communities and indigenous populations, different forms of ownership – such as customary, informal or communal tenure regimes – replace the traditional figure of the landlord with individual property rights. When this is the case, even the *full market value rule* might be unsuitable, since typically land markets do not account for intangible elements, such as the spiritual attachment to specific land sites or other land-related cultural values of indigenous populations.

In this regard, the recent decision in *Griffiths v Northern Territory of Australia*<sup>53</sup> – also known as the *Timber Creek decision* – has been seen as the first decision ruling the payment of compensation to native people for the loss or impairment of traditional rights and interests under the provisions of the *Australian Native Title Act*.<sup>54</sup> The peculiar nature of customary forms of tenure is clearly acknowledged in the motivations of the *Timber Creek decision*:

“Native title, as the jurisprudence now clearly accepts, is a communal bundle of rights, and not an individual proprietary right. It depends for its existence on the continuing

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<sup>50</sup> Miceli, T. J., and Segerson, K., ‘Regulatory Takings: When Should Compensation Be Paid?’, *The Journal of Legal Studies*, Vol. 23, No. 2, 2007, pp. 749–776.

<sup>51</sup> Page 65, in Hermalin, B., ‘An Economic Analysis of Takings’, *Journal of Law, Economics & Organization*, Vol. 11, No. 1, 1995, pp. 64–86.

<sup>52</sup> See Nolte, *supra* note 9.

<sup>53</sup> *Griffiths v Northern Territory of Australia*, (No. 3) [2016] FCA 900. Available at: <http://www.fedcourt.gov.au/digital-law-library/judgments> (accessed on 3 February 2017).

<sup>54</sup> *Native Title Act, 1993* (Cth).

acknowledgment and observance of the relevant traditions, customs and practices of the community”<sup>55</sup>.

Interestingly, when determining the amount of the \$3.3 million compensation to be paid to the *Ngaliwurru-Nungali* aboriginal peoples which follows the development of the town of Timber Creek and its surroundings, the Honourable Judge Mansfield of the Federal Court of Australia took into account both economic and non-economic land values. In particular, concerning the value of the compensation, the Court ordered that:

“The compensation payable to the native title holders by reason of the extinguishment of their non-exclusive native title rights and interests arising from the said act is:

(a) Economic value of the extinguished native title rights: \$512,400;

(b) Interest on the said sum of \$512,400 assessed in accordance with the reasons for judgment: \$1,488,261;

(c) Allowance for solatium of \$1,300,000;

Totalling \$3,300,661”<sup>56</sup>.

In determining the economic value, the judge concluded that “appropriate valuation should be 80% of the freehold value”<sup>57</sup> (a), plus simple – and not compound – interests (b) to be calculated on the economic value of land. In practice, the judge did not adopt nor the *zero compensation rule*, nor the *full market value rule*, but he opted for a compromise – still closer to the market value – between the two approaches. Instead, in evaluating the non-economic damages (c), a more discretionary method was used, granting to the claiming group a compensation in the form of *solatium*. Remarkably, the Judge adopted an approach based on a clear distinction between the evaluation procedure for the strictly economic loss and the evaluation of the spiritual, ceremonial and cultural harm, in order to avoid a double counting of the total losses suffered by the natives. In this case, if it is true that the evaluation of the economic aspects of the compensation has been made based on (a share of) the market value of the land at time of the land acquisition, however the final value of the compensation, including also non-economic losses, exceeded the full market price of land. As expected, in September 2016 the Northern Territory government, which was sanctioned to pay the compensation, appealed the decision precisely on the basis of the discretionary nature of the method used for the determination of the *solatium*.<sup>58</sup> In other words, if the right to an *in globo* amount for non-economic hurt experienced by the aboriginal people is not object of contention, the quest over the appraisal of the actual determination of such component of the compensation is still open.

Notwithstanding the value of the contribution of the existing literature and jurisprudence on the fair compensation issue, I clarified why the question of the efficient determination of the fair compensation for local communities and indigenous people in the context of LSLAs is novel and why it requires a new theoretical framework. However, before introducing the original model for fair compensation in LSLAs contained in this work, further preliminary aspects need to be addressed.

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<sup>55</sup> *Id.*, §219.

<sup>56</sup> *Id.*, §3.

<sup>57</sup> *Id.*, §232.

<sup>58</sup>

### II.3. Towards a Fair (Operational) Definition of Fair Compensation in LSLAs

The definition of fair compensation for local populations affected by LSLAs presents some theoretical challenges, which have strong repercussions at the operational level. The global consensus around the right to fair compensation discussed in the introduction conceals a more controversial situation when it comes to an operational definition of what is eligible for compensation and how its value should be determined. The analysis of the *Timber Creek decision* revealed how contentious the determination of the compensation can be, especially when non-economic values need to be taken into account.

This problem, alongside with other issues, is acknowledged in a recent study jointly conducted by True Price and the University of Groningen<sup>59</sup>, which constitutes a high level collaborative effort toward an operational definition of fair compensation in the context of land tenure changes. In a very stimulation excerpt of this volume, the authors state that:

“In compulsory land tenure changes, rightfulness and legality depend on various factors. Genuine public purpose and due process have been identified as central pre-requirements to fair compensation. There is a *genuine public purpose* if the grounds for expropriating people are justified as the underlying project genuinely serves the public benefit and that this has been established after having followed a due process. With a *due process* the expropriation process is in line with all legal and procedural requirements. This includes meeting the requirement of Free, Prior and Informed Consent (FPIC) when this is applicable. If process and purpose pre-requirements are met, and adequate compensation is provided to affected people and communities for the loss of their tenure rights, it is possible to talk of fair compensation. Fair compensation should at least restore the livelihoods of affected people. People should not be left in a worse situation”.<sup>60</sup>

This formulation introduces a series of crucial elements. But let us begin with things in order. Besides the traditional prerequisites of *genuine public purpose* and *due process*, this formulation recognizes also the FPIC principle as a precondition for fair compensation, in line with the provisions contained in the UN *Declaration on the Rights of Indigenous People*, in the VGGT and in the IFC *Performance Standards*. At this stage, a question may arise: *What are the implications of FPIC in economics?*

*Figure 1* translates the components of the FPIC principle into a more economic jargon. Surprisingly, the three components of FPIC are equivalent to the renowned Coase theorem.<sup>61</sup> Without entering in the maze of different proposed articulations of the theorem and the related implications<sup>62</sup>, in our case it is sufficient to say that regardless of the initial allocation of property rights, in a world with perfect information and zero transaction costs, the bargain will

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<sup>59</sup> True Price and University of Groningen, *Towards a protocol on fair compensation in cases of legitimate land tenure changes. Input document for a participatory process*, Study commissioned by the Organising Committee of the Dutch Land Governance Multi-Stakeholder Dialogue, 2016, Amsterdam: True Price and University of Groningen, available at: <https://landportal.info/es/library/resources/towards-protocol-fair-compensation-cases-legitimate-land-tenure-changes> (accessed 12 November 2016).

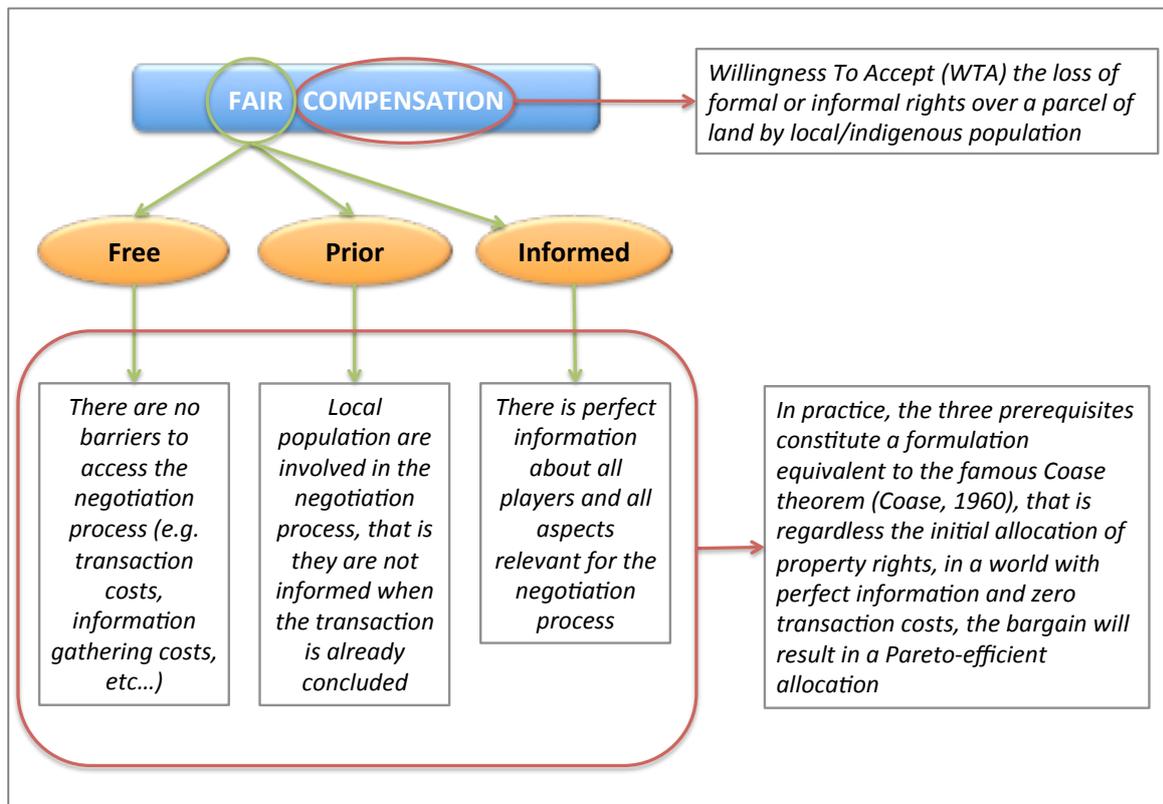
<sup>60</sup> Id., p. 4.

<sup>61</sup> Coase, R., ‘The Problem of Social Cost’, *Law and Economics*, Vol. 3, No. 1, 1960, pp. 1–44.

<sup>62</sup> See, e.g., Medema, S., and Zerbe, R., ‘The Coase Theorem’. In Bouckaert, B. and De Geest, G.(eds.), *Encyclopedia of Law and Economics*, Volume I, pp. pp. 836–892, 2000, Cheltenham: Edward Elgar.

result in a Pareto-efficient allocation. In other words, it seems safe to assume that when FPIC requirements are fully met and property rights are clearly allocated, the negotiation process can yield to an efficient allocation of resources in which none of the parties involved is worse-off. This intuition will be further investigated in the light of the model that will be presented in the next sections.

Figure 1 - Implications of the FPIC Principle in Economics



Another crucial element in the passage from True Price and University of Groningen, is the nexus established between fair compensation and the livelihood of the people affected by the tenure change. The definition of fair compensation as a compensation that “at least restore the livelihoods of affected people”, introduces a new crucial element for the appraisal of the value of fair compensation. Indeed, the economic debate over the optimal compensation rule, has been described so far in this work through different declination of the notion of market price for land, rather than on the concept of livelihood. While the former approach – the market price approach – focuses on land itself, the latter emphasizes the livelihood, that is the value realized through actual use land by the landholders. In some sense, the differences in the two methods retrace the distinction between the potential use of land – and thus the revenue hypothetically achievable as a result of all possible uses – and the actual use of land. In both cases, it is reasonable to assume that any depreciation or appreciation of the value of land attributable to the acquisition – or perspective acquisition – should not be taken into account for compensation purposes.<sup>63</sup> Nevertheless the price for land in the free market may not coincide with the actual

<sup>63</sup> This is view is adopted both in the economic and jurisprudential literature on just compensation. In fact, it is one of the core arguments in the BRS model; it is also frequently included in national laws, such as Section 9 of

livelihood of local population, especially when this livelihood is close to the mere subsistence. Furthermore, in many developing countries, the segmented nature of tenure systems – where formal, informal and customary rights over land coexist without a clear set of principles for their regulation and recognition – undermines the existence of a domestic land market. Even when a private market for land exists, transactions are often informal, so that price records can be hardly found and markets are typically subject to distortions, making the operative application of any appraisal of compensation based on free market prices extremely difficult. In general, it is possible to think of compensation as a restorative tool, aiming at redressing actual losses rather than potential ones. All this taken into account, an approach based on livelihood – which is not free from computational challenges – seems more suitable for the calculation of the fair compensation of local communities in transnational land deals, especially when reference market prices for land are not available.

The *IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement*, which can be seen as one of the few international documents that goes over and above the simple recognition of the right to compensation and offers insights for the practical evaluation of the compensations, reach a sort of compromise between the livelihood approach and the market price one:

“When displacement cannot be avoided, the client will offer displaced communities and persons compensation for loss of assets at full replacement cost and other assistance to help them improve or restore their standards of living or livelihoods”<sup>64</sup>, where “Replacement cost is defined as the market value of the assets plus transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Market value is defined as the value required to allow Affected Communities and persons to replace lost assets with assets of similar value”.<sup>65</sup>

In general, the it seems prevailing the view that actual losses – rather than potential or future ones – are to be compensated based on free the market values or a fraction of them. However, it is also dominant the conception that the economic harm is not the only element to be compensated, especially when the compensation is required for indigenous people. Indeed, the third clause contained in article 32 of the *UN Declaration on the Rights of Indigenous Peoples* emphasizes environmental, social, cultural and spiritual impacts beside the mere economic ones. This suggests that the concept of livelihood, when used as a base for the valuation of the compensation, should be broaden beyond his pure economic definition, so as to include intangible factors, which are valuable but hardly expressible in monetary terms.

Inspired by this intuition, I will adopt this broader definition of livelihood in the following section, which presents a new theoretical model for fair compensation in transnational land deals.

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the UK *Land Compensation Act* (1961), available at <http://www.legislation.gov.uk/ukpga/Eliz2/9-10/33/contents> (accessed 13 February 2017).

<sup>64</sup> Supra, note 17, §9.

<sup>65</sup> Id., note 4, p.1.

### III. A Theoretical Model for Fair compensation in LSLAs

As previously noted, despite the international consensus and the growing number of provisions and guidelines, there is little evidence over the concrete application of the FPIC principle and the actual payment of any form of compensation for local communities and indigenous population affected by LSLAs. Furthermore, there are theoretical and operational challenges related to the definition and the actual determination of the fair compensation. Given this picture, the model inquires whether a just compensation is achievable at all in the context of transnational land deal and under which conditions the interests of private investors, host governments and local people can be efficiently and fairly combined. Despite stringent – but rather common – economic assumptions, the model offers interesting insights on the compensation issue.

The land deal under analysis takes place in a world without externalities, where perfect information is immediately and freely available for all. The general background is the following: an international investor plans an investment which requires a large-scale land lease in a foreign country. In the destination country all land is owned by the state and the national law prescribes the payment of a rent – say a constant amount per year per hectare – to the local government. The concession area under negotiation is assumed to have homogenous features in every point and it is inhabited by a local population, claiming customary rights over the total surface of the concession. However, the investor can offer a compensation to the locals in order to avoid the costs – which are assumed to be such that the investment would not be profitable anymore – of delaying the project due to the opposition that locals would put in place if their livelihood is negatively affected by the deal. The players involved in the negotiation process, thus, have to find an agreement upon the land rent, the compensation, as well as on the actual size of concession area.

We can define the concession area as a surface comprised in the  $[0, A]$  interval of positive real numbers including zero ( $\mathbb{R}_0^+$ ), where – given the homogenous features assumption previously mentioned – each single point has exactly the same characteristics (i.e. *pedoclimatic features, water availability, soil quality...*) of any other point in the concession area. Formally, we have:

$$a = [0, A] \quad A \in \mathbb{R}^+ > 0, a \in \mathbb{R}_0^+ \quad [1]$$

In other words, the area of land under negotiation covers a total surface of  $A$  hectares, but nothing prevents the deal to be signed over a portion of the concession smaller than  $A$ .

The three players involved in the negotiation – namely the international investor, the local government and the local population affected by the deal – are rational in the economic sense and have their own maximisation objective. In particular, the investor tries to maximize the profit ( $\Pi$ ) originating from the investment; the government wants to maximise the total revenue ( $\Theta$ ) deriving from the land rent, whilst the locals wish to maximize their livelihood ( $\Lambda$ ), which stems from land only as a combination of both economic and non-economic elements. Formally, we can write the constrained objective functions as follows:

$$\text{Investor} \quad \max \Pi = \{0, R(a) - C(a)\} \quad [2]$$

$$\text{Government} \quad \max \Theta = \{0, T(a)\} \quad [3]$$

$$\text{Locals} \quad \max \Lambda = \{L(A), L(A - a) + K(a)\} \quad [4]$$

Where  $R$  is the total revenue for the investor and  $C$  is the total cost she faces if the investment starts. Obviously, if the deal is not concluded, the investment does not start and the investor profit ( $\Pi$ ) is simply equal to zero. The government revenue achievable from the land deal under

negotiation ( $\theta$ ) is defined as the total land rent ( $T$ ) paid by the investor if the deal is concluded. Again, in case the deal is not signed, the government would have no land rent at all. For the local population the situation is different. If land is the only asset the local population can rely on for subsistence, then their total livelihood ( $\Lambda$ ) is the sum of the livelihood they can extract from the land they have access to ( $L$ ), plus the compensation ( $K$ ) they would receive in case the deal is concluded. However, in this case, if the deal is not concluded, they would keep generating livelihood from whole concession area ( $A$ ) to an extent equal to  $L(A)$ , just like before the land deal.

Looking at [2], [3] and [4] it is possible to define the pay-off for each player, with and without the deal, as follows:

*Table 1 – Overview of the Payoffs with and without the Deal*

	<i>No Deal</i>	<i>Deal (all accept)</i>
<i>Investor</i>	0	$\Pi = R(a) - C(a)$
<i>Government</i>	0	$\theta = T(a)$
<i>Locals</i>	$L(A)$	$\Lambda = L(A - a) + K(a)$

Let me now define formally  $R$ ,  $C$ ,  $T$ ,  $L$  and  $K$ . Let us assume that investor is price taker and that the investment involves the production of a single output – say a specific food crop. Given the homogeneity assumption about the concession area, it makes sense to think of a constant yield per year per hectare. If we now define  $p$  as the (exogenous) market price for the exact quantity of output that equals the aforementioned constant yield, it is then possible to express  $R$  as follows:

$$R = pa \quad [5]$$

For the costs, we assume that the investor will face some fixed initial costs equal to  $f$ , as well as some production costs  $c$  in a quadratic relation<sup>66</sup> with the size of the concession area. In other words, we are considering an investment with marginal costs increasing with respect to the extent of the concession area. In addition, the investor pays the land rent to government  $T(a)$  over the concession area and the compensation  $K(a)$  to the locals. We can now define the total cost function as follows:

$$C = f + ca^2 + T(a) + K(a) \quad [6]$$

Assuming that the government revenue takes the form of a constant rent per year per hectare ( $t$ ), we can write  $T$  as follows:

$$T = ta \quad [7]$$

Focusing on the local population, let me define separately – for the sake of a greater clarity – the livelihood extractable from the land ( $L$ ) and the compensation they would get if the deal is concluded ( $K$ ). The model assumes that the locals are able to extract a constant surplus per

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<sup>66</sup> This is just an operational assumption. Obviously, different cost structures exist and can led to different results, and considering all potential costs functions can constitute the object of future research. Said this, the present model still offers a valuable contribution for the analysis of the fair compensation issue. In line with this view, Section IV.1 acknowledges that the specific cost function chosen in this model drives the results of the model, but it recognizes also that this consideration highlights the crucial role of played by private costs and revenues for the practical achievability of the fair compensation in LSLAs.

year per hectare ( $l$ ) from the land they live on, which is equal to the total concession area ( $A$ ), net of the surface on which the deal is concluded ( $a$ ). Therefore,  $L$  can be expressed as follows:

$$L = l(A - a) \quad [8]$$

Similarly, it is possible to express the total compensation ( $K$ ), if any, as a fixed value per year per hectare ( $k$ ), times the size of the concession area on which the deal is signed ( $a$ ). Formally we have:

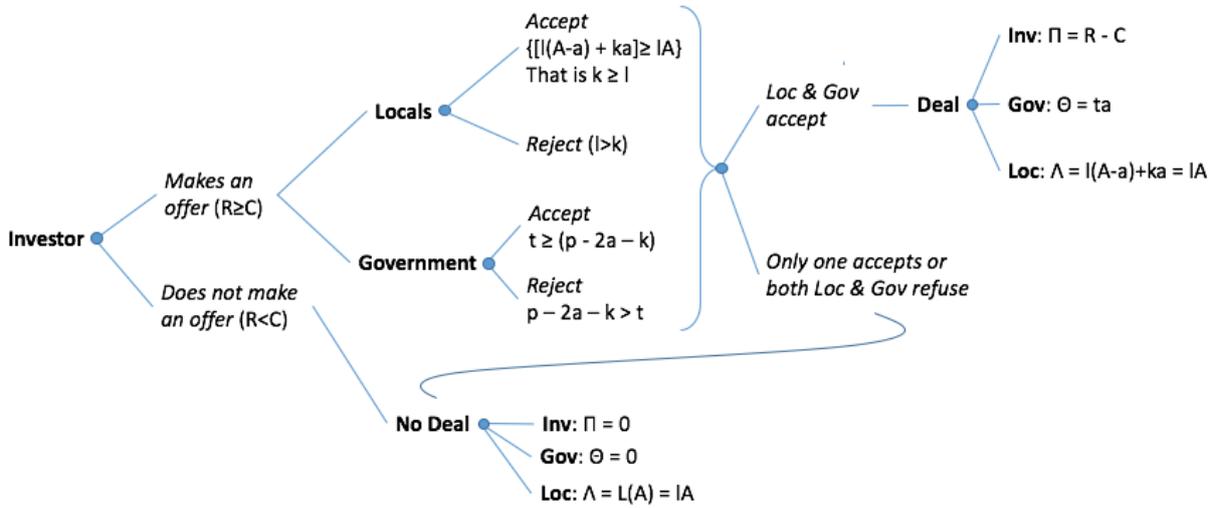
$$K = ka \quad [9]$$

By substituting  $T(a)$  and  $K(a)$  with their expression in [7] and [9], is it possible to rewrite the investor cost in equation [6] as follows:

$$C = f + ca^2 + ta + ka \quad [10]$$

Now, if we imagine a situation in which the investor is the one formulating the offer, which includes a certain  $t$  for each hectare under the deal to be paid to the government and a certain  $k$  for the locals, it follows that the locals and the government, individually, are left with the choice to accept or reject the deal. The figure below characterizes this situation.

Figure 2 – The Structure of the Negotiation



Since the investor is the first-mover, and considering that he has access to full and costless information, we can start by looking at his objective function only. In particular, considering [2], [5] and [10], we can write  $\Pi$  as follows:

$$\Pi = pa - f - ca^2 - ta - ka \quad [11]$$

Considering [11], the first and second order condition can be written as follows:

$$\frac{d\Pi}{da} = R' - C' = p - 2ca - t - k = 0 \quad [12]$$

$$\frac{d^2\Pi}{da^2} \equiv R'' - C'' = 0 - 2c \leq 0 \Rightarrow 0 \leq 2c \quad [13]$$

In other words, the investor will be maximising the profit when:

$$p = 2ca + t + k \quad [14]$$

It follows that the investor will make an offer only if equation [14] stands. At this stage, however, we still have very little information about the exact  $t$  and  $k$  that the investor will offer to the government and to the locals respectively. Thanks to the full information assumption, the investor knows that the local population is indifferent to the situation in which the compensation ( $K$ ) is *fair*, that is when total livelihood of the locals is exactly the same as before perspective deal. In other words, the local population would accept the deal if the following equation is valid:

$$lA = l(A - a) + ka \quad [15]$$

Equation [15] holds if  $a$  is equal to zero – implying that no deal is signed – or when  $k$  equals  $l$ . Following this line of reasoning, the investor will be offering to the locals a value for  $k$  that is exactly equal to  $l$ , the livelihood per year per hectare that they get from the land. Since  $l$  is given and exogenous in this model, we can now define the optimal compensation per year per hectare ( $k^*$ ) with the following equation:

$$k^* = l \quad [16]$$

A simple solution can be found also if we look at the government side. Again, thanks to the availability of free and complete information, the investor will formulate the offer knowing that the government revenue from land before the deal under negotiation was null. It follows that the investor will be offering a zero-rent per year per hectare, thus leaving the government exactly indifferent if compared to the pre-deal situation. The optimal land rent per year per hectare ( $t^*$ ), will be simply zero:

$$t^* = 0 \quad [17]$$

At this stage, it is possible to define the optimal concession size ( $a^*$ ) too. Indeed, substituting  $k$  and  $t$  in equation [14] with their expressions respectively in [16] and [17] and solving with respect to  $a$  we are left with:

$$a^* = \frac{p-l}{2c} \quad [18]$$

Now, with the expressions for  $k^*$ ,  $t^*$  and  $a^*$  in [16], [17] and [18] we have a solution for the initial problem, that was to find an agreement among the players upon the land rent, the compensation, as well as on the actual size of concession area. Therefore, from a theoretical perspective, transnational land deals can lead to an economically efficient result, in which none of the players are left worse off, even in those situations that require the payment of a fair compensation to local communities. The theoretical existence of a formal solution, however, does not necessarily imply that the solution – and therefore the fair compensation outcome – is feasible. Indeed, the model suggests that in order to achieve a fair compensation for local communities in LSALs, various conditions – such as full information and profitability of the investment after the deduction of the costs for land rent and compensation – must simultaneously occur. Furthermore, the practical calculation of the value of the livelihood of the local community, which has proven to be a very challenging task, faded behind the theoretical nature of the model. Nevertheless, the model suggests that the fair compensation puzzle in LSALs can be solved in an efficient way.

#### IV. Discussion

The theoretical existence of an optimal solution for the fair compensation in LSLAs is at odds with the little evidence on the actual payment of whatsoever form of compensation to local communities in the context of large-scale transnational land deals. Therefore, this section

– to be intended as bridge between theoretical findings emerging from the model and the reality of LSLAs – discusses in a qualitative manner the potential sources of failure and success in the negotiation process and highlights in which direction the model can be further developed.

#### IV.1. The Nature of the Investment and the Features of the Concession Matter

As already noted, the solution of the model depends upon the assumptions on the investment structure, that is the specific functional form that characterizes costs and revenues. In particular, the model postulates a linear revenue function and a quadratic cost function. If these particular assumptions certainly limit the generalizability of the model, nevertheless they suggest that the specific nature of the investment itself contributes in determining whether the fair compensation is achievable at all. In general, the more an investment is profitable, the higher are the chances that both economic and non-economic costs associated to the fair compensation can be covered.

Several destination countries, in an effort to attract international investors and in line with national and international development strategies, have established a wide range of policy reforms<sup>67</sup>, including the creation of investment agencies directly aiming at supporting foreign investors with legal, procedural and operational issues; the provision of generous tax exemptions; the creation of special development zones characterised by very low and sometimes close to zero land rents, which is line with the findings emerging from the model. If it is true that all these elements contribute to the profitability of transnational land investments, and thus can contribute to the achievement of fair compensation, it seems that these efforts are not balanced by the introduction of policies, bodies and regulations that safeguard and enforce the rights of local communities and indigenous populations affected by LSLAs.

Following the same approach and trying to transform a limiting assumption in an insightful element, we can now turn the attention to the homogeneity assumption of the concession area. In fact, land concessions are rarely uniform, especially when they are large and the physical features of the concession – such as the size, the pedoclimatic characteristics and the boundaries – affects costs and revenues of the investment, as well as the value of the fair compensation, thus contributing to the overall feasibility of an efficient and fair outcome.

All this taken into consideration, the availability of detailed and complete information over the investment and the concession area are key factors for the success of LSLAs related investments as a development opportunity. If such information were available during the exploratory phase, the achievability of fair compensation could be assessed *ex-ante*, thus reducing the risks associated both with negative impacts for local population and with unanticipated economic losses for the investor. However, the existing evidence suggests that the negotiations often take place behind closed doors and contractual terms are rarely disclosed<sup>68</sup> even *ex-post*, that is after the contract is signed.

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<sup>67</sup> See, e.g., Hallam, D., ‘Foreign Investment in Developing Country Agriculture – Issues, Policy Implications and International Response’, *Discussion Paper*, distributed as a part of the official conference documentation at the OECD Global Forum on International Investment VII, 7-8 December 2009, available at: <http://www.oecd.org/investment/globalforum/44231828.pdf> (Accessed 3 February 2017); See also Keeley, J., Michago Seide, W., Eid, A., and Kidewa, A., *Large-scale land deals in Ethiopia: Scale, trends, features and outcomes to date*, 2014, London: IIED, available at: <http://pubs.iied.org/pdfs/12575IIED.pdf> (Accessed 3 February 2017).

<sup>68</sup> *Supra*, note 8

## IV.2 Land Value or Land Values?

Is the value of the very same plot of land the same for everyone? Arguably, it is not. The land market is the place where different perceptions are balanced so as to form the price, which represents the particular value at which both the buyer and the seller are willing to conclude the transaction. Yet, when it comes to land, there is an extremely intertwined and complex range of aspects to be considered in order to form the price. Indeed, land does not embed only economic elements, but often includes emotional, cultural and spiritual values, which are clearly valuable but hardly quantifiable in monetary terms. The lack of national land markets, the poor definition of property rights and the mottled nature of economic, cultural and institutional settings in which LSLAs are negotiated, all together suggest that the appraisal of the value of land can be extremely difficult.

From an economic perspective, the investor's willingness to pay (WTP) might diverge from the locals' willingness to accept (WTA) for both monetary (money for land) and in kind (land for land) forms of compensation. Remarkably, the divergence between WTA and WTP has received considerable attention in the economic literature. Indeed, according to Brown and Gregory:

“One of the more popular anomalies, at least among resource economists and behavioral psychologists, is the observed disparity between two familiar and supposedly equivalent measures of economic value. One is willingness to pay (WTP), which reflects the maximum monetary amount that an individual would pay to obtain a good. The other is willingness to accept compensation (WTA), which reflects the minimum monetary amount required to relinquish the good. WTP therefore provides a purchase price, relevant for valuing the proposed gain of a good, whereas WTA provides a selling price, relevant for valuing a proposed relinquishment”.<sup>69</sup>

In their metanalysis of 50 empirical papers, Horowitz and McConnell<sup>70</sup> found that on average the WTA is more than seven times the WTP. Also, this proportion tends to grow the further the studied good is from being an ordinary private good. Interestingly, the authors of this paper interpret this result in terms of property right, suggesting that it is related to the effect of assigning legal rights either to the buyer or to the seller. If the empirical ratio suggested in this study was valid for LSLAs, then the fair compensation measured according to the WTA of local population would be roughly seven times higher than the compensation offered by the investor. Interestingly, a similar proportion holds when comparing the initial \$22 million compensation requested on behalf of the *Ngaliwurru-Nungali* aboriginal peoples with the final \$3.3 million compensation ruled by the court in the *Timber Creek decision*.<sup>71</sup>

In the model the value of the livelihood, and thus the value of the fair compensation, was given. Yet, the practical estimation of the fair compensation value has proven to be a very controversial task. For this reason, the fair compensation should be intended as an *extrema ratio*. Nevertheless, when all other options fail, the right to fair compensation should be enforced unhesitatingly with transparent and clear procedures. Conversely, the absence of due process and clear provisions for the calculation of the fair compensation, potentially increases

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<sup>69</sup> See p. 323 in Brown, T. C., and Gregory, R., ‘Why the WTA-WTP disparity matters’, *Ecological Economics*, Vol. 28, No. 3, 1999, pp. 323–335.

<sup>70</sup> Horowitz, J. K., & McConnell, K. E., ‘A Review of WTA / WTP Studies’, *Journal of Environmental Economics and Management*, Vol. 44, No. 3, 2002, pp. 426–447.

<sup>71</sup> *Supra*, note 52.

the chances that LSLAs result in *land grabbing* at the expenses of the most vulnerable and marginal rural communities.

### IV.3 Players' Behaviour, Bargaining Power and Information

I cannot stress enough the fact that the model for fair compensation in LSLAs discussed in this work is based upon rather simple – yet common – economic and behavioural assumptions, which are formalised through the maximization function of each of the parties involved in the land acquisition.

Behavioural studies in the economic field suggest that social preferences and beliefs can affect the negotiation process. For instance, Fehr and Schmidt<sup>72</sup> introduced the concept of inequity aversion based on the fact that people form their decisions not only upon their personal interest but also looking at their preferences in term of desirability or fairness of given social outcomes. In practice, the intuition is that absolute payoffs are not the only variable of interest when a player is conceiving his optimal strategy. Relative payoffs matter as well. In our context, this reasoning implies that different assumption about players' behaviour – consider, for instance, an equity (or inequity) averse investor or a benevolent (or non-benevolent) government – would modify the objective function, therefore affecting the outcome of the negotiation process.

Following Fischbacher & Gächter<sup>73</sup>, social preferences and beliefs about other players' behaviour are crucial elements in public good experiments. They observed that cooperation outcomes tend to be achieved with a higher probability when players reveal high levels of inequality aversion. Yet, the fact that individuals might realize over time the existence of free riders, dynamically lead them to adjust their beliefs about other players, eventually leading to a universal free riding outcome. In the context of LSLAs negotiations, this suggest that if one of the players is behaving in an opportunistic way, then, all other players might adopt the same approach, thus reducing the chances of reaching a mutually beneficial agreement among the parties.

Interestingly, the empirical literature highlights also that social preferences and beliefs are influenced by the concept of group identity<sup>74</sup>. In particular, adopting an altruistic behaviour is more likely when people perceive themselves as a part of the same social group. Therefore, people belonging to the same group are more likely to reach a cooperative outcome and are less prone to punish misbehaviour from individuals belonging to their same group. Applying this reasoning to transnational land deals, we might think that if the government, the investor and the locals perceive themselves as part of different – say – ethnical communities, this might influence their willingness to cooperate for the achievement of the fair compensation.

Inspired by the model of holdouts and takings proposed by Miceli and Segerson<sup>75</sup>, it is reasonable to assume that the stronger the threat of holdout the local community can express, the higher the incentive for the investor and the government to negotiate a high compensation would be. This can be relevant when considering the model assumption according to which the

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<sup>72</sup> Fehr, E., and Schmidt, K., 'A Theory of Fairness, Competition and Cooperation', *Quarterly Journal of Economics*, Vol. 114, 1999, pp. 817–868.

<sup>73</sup> Fischbacher, U., and Gächter, S., 'Social Preferences, Beliefs, and the Dynamics of Free Riding in Public Goods Experiments' *American Economic Review*, Vol. 100, No. 1, 2010, pp. 541–556.

<sup>74</sup> Chen, Y., and Li, S. X., 'Group Identity and Social Preferences', *The American Economic Review*, Vol. 99, No.1, 2016, pp. 431–457.

<sup>75</sup> Miceli, T. J., & Segerson, K. (2007). A bargaining model of holdouts and takings. *American Law and Economics Review*, 9(1), 160–174.

investor was willing to compensate the locals in order to avoid the costs of delaying the project due to the opposition that locals would have put in place in case of negative livelihood impacts. However, if the local community does not have enough power to oppose the project, or if their right to reject the project is not enforced, the investor and the government might be tempted to bypass the local people. This element is also related to the bargaining power of different players. Often, local communities and indigenous populations can be identified with rural poor and are socially, economically and politically marginalised. This might turn into an uneven distribution of the bargaining power among the parties, therefore reducing the chances of the achievement of the fair compensation, leading to situations in which part of the surplus that the locals would be entitled to is captured by the investor and the government. If this is the case, we might expect outcomes in which the optimal size of the land concession tends to be overestimated, whilst the optimal value of the fair compensation tends to be underestimated.

In general, one of the strongest assumptions of the model is that complete and costless information is available to all players. If the information is only partially available, or if it is available only to some of the players, then, the bargaining process which can lead to suboptimal allocations and can seriously undermine the achievement of the fair compensation.

## V. Concluding Remarks

Despite the international consensus around the *right to fair compensation* and the *free, prior and informed consent (FPIC) principle* for local communities and indigenous populations in the context of tenure changes, the existing evidence suggests that these rights often exist only on paper. Through the development of an original model for fair compensation in LSLAs and looking at the findings emerging from the existing literature, this paper enquired whether the fair compensation can be achieved at all in this context.

The model suggests that the achievement of fair compensation for local populations and indigenous communities affected by LSALs is possible and it can be combined with the private interest of foreign investors and with the objectives of the host country government. However, this result – which implies combining often contrasting efficiency, development and equity goals – proved to be achievable only when specific conditions are met.

Highly profitable investments have more chances of covering the costs associated with fair compensation. For these reason, all the financial aspects of the investments related to LSLAs have to be available for all parties involved in the negotiation process and need to be carefully assessed. Investments with vague, risky or unrealistic profit perspectives should be avoided, especially when they can affect negatively local communities and indigenous populations.

Many host country governments, in the context of national development frameworks, established a wide range of policy interventions aimed at facilitating the inflow of foreign capital that typically follows LSLAs. These policies for the attraction of foreign investors need to be balanced with interventions that minimizes the risks associated to transnational land deals, such as the lack of participation of local communities, the imbalance in the bargaining power of the parties during the negotiation process and the lack of transparency and information. This includes clear prescriptions, interventions and tools that enforce the rights of the affected local populations, especially when these populations are socially, economically, politically and institutionally marginal.

Given the difficulties related to the practical determination of the fair compensation, especially when non-economic values are included, it should be regarded as an *extrema ratio* and it should be considered only when all other potential options are not feasible. Nevertheless, when all other options fail, the right to fair compensation should be enforced unhesitatingly with transparent and clear procedures.

Complete information, participation, profitability of the investment after deduction of land rent and compensation, recognition of customary tenure regimes, enforcement of the right to reject the project and clear rules for compensation are the main conditions for the success of negotiations. When these conditions occur, the fair compensation can act as a catalyser for those investments that are real development opportunities, rather than land grabbing and natural resource rent seeking at the expense of vulnerable communities and indigenous populations.