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## USAID BURMA LAND TENURE PROJECT

# FREEDOM TO FARM: AGRICULTURAL LAND USE, CROP SELECTION, FALLOWING, AND RECOMMENDED CHANGES TO THE FARMLAND LAW TO STRENGTHEN LAND TENURE SECURITY

*“Mo Seet Ger Daw Khu A Klee, Pa Seet Ger Daw Nweh A Klee  
Ger Daw May Bweh Tor ther Hsee, Ta Kah Na Khay Per Der Thee”*

*“The mother advised us to save the seed of the taro,  
The father advised us to save the seed of the yam.  
If we save up to thirty kinds of seeds,  
Our lives will be sustained in times of crisis.”<sup>1</sup>*

### SUMMARY

The freedom to farm one’s land as one chooses, as manifested in basic choices about what crops to grow, what agricultural products to produce, and when to fallow fields, is an assumed freedom held by many agriculturalists. In the Burma context, government restrictions on crop choice, production systems, and the ability to fallow land create a different environment for smallholders. Chapter IV of the Farmland Law of 2012 prohibits the growing of alternative crops and the fallowing of land without government permission; Chapter X requires applications for permission to grow alternative crops. In addition, the limited definition of “farmland” in Chapter I, along with an overly complicated land classification system, limits what types of production systems may be adopted, and leads to difficulties in

<sup>1</sup> THE KAREN ENVIRONMENTAL AND SOCIAL ACTION NETWORK, DIVERSITY DEGRADED: VULNERABILITY OF CULTURAL AND NATURAL DIVERSITY IN NORTHERN KAREN STATE, BURMA 25 (Dec. 2005), [http://www.burmalibrary.org/docs13/KESAN-diversity\\_degraded-en-op7550.pdf](http://www.burmalibrary.org/docs13/KESAN-diversity_degraded-en-op7550.pdf).

relation to livestock production and development of land-based aquaculture. To better understand what is at stake with these prohibitions in place, this brief first explores the basis for the right to agricultural land use freedom, examining economic issues, international rights movements, and climate change issues. It then looks at the right to crop selection, delving into the economic issues involved, including the land tenure security benefits of crop choice and the agricultural benefits of crop diversity, as well as legal and ecological issues. Third, it examines the basis for the right to fallow, again looking at the economic effects of fallowing, as well as the cultural, legal, and ecological issues involved.

Concluding that the freedom to select one's crops and what agriculture products to produce and to fallow one's land is advantageous for farmers and for the broader sustainability and productivity of Burma agriculture, the paper then describes recommended amendments to the Farmland Law, and by effect to the Form 7 restrictions on smallholder utilization of land. This discussion of suggested amendments is grounded in elements of the 2016 National Land Use Policy (NLUP), offering amendments to the restrictions on crop selection and fallowing, as well as to other elements of the Farmland Law that impact the rights of women and customary users. These suggested amendments conclude with recommendations for the elimination of criminal penalties for breaches of the law's use restrictions, and the overall decriminalization of practices that may run counter to the Farmland Law.

## **BASIS FOR THE RIGHT OF AGRICULTURAL LAND USE FREEDOM**

As the Government of Burma transitions from a state-controlled agriculture sector to a free market economy model, the relationship between the country's land classification system and the wishes of its farmers is central to questions of smallholder tenure reforms and agricultural productivity. Rather than supporting the freedom to use agricultural land as farming families deem most beneficial, the state continues to impose use restrictions, most notably on paddy land, embedded in a land classification system with complex categories, and places a heavy burden on applicants to navigate those classifications. The current system is convoluted, irregularly enforced, and runs counter to smallholders' needs to boost agricultural productivity. By restricting conversion of land use types and classifying agricultural land by specific crops, the current classification system stymies the growth of smallholder farms in a market economy and makes them less resilient in a climate change context. Following the rules while seeking increased productivity and profitability requires frequent applications for exemptions and conversion of land classification, taking time and resources from both the farmer and government officials.

A new classification system should reflect the agricultural land definition found in the NLUP<sup>2</sup>, a much broader definition than the current, overly restrictive definition used in the Farmland Law (2012).<sup>3</sup> This definition—agreed upon with the input of various stakeholders across the government, civil society, communities, and smallholders themselves—reflects the rich, complex, and varied nature of lands used for agriculture production purposes across the country, and a trust in farmers' choices about use of those agricultural lands. The distinctions in the Farmland Law between farmland, low land (paddy land), and alluvial land, and several sub-categories, create significant barriers to crop choice, and also allow cultivation only of crops, gardens, and horticulture. The NLUP definition does not contain these strict classifications and allows for animal husbandry and land-based aquaculture on farm land. With only two other classifications (forest land, other land) the NLUP seeks to greatly simplify the formerly complex land classification system in Burma. As Burma's agricultural sector evolves, the government can play a

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<sup>2</sup> *National Land Use Policy* (2016), Burma, Sec. 13(a) defines agricultural land as follows: "Agricultural land (all land used primarily for agriculture production purposes, including growing annual or perennial crops, growing industrial crops, animal husbandry activities, land based aquaculture activities, and any agriculture production focused support facilities, and any agriculture production focused support facilities that are either currently cultivated or fallow)."

<sup>3</sup> *The Farmland Law* (2012), Burma, Sec. 3(a-d).

supporting role as smallholders determine the future of Burmese farming; the process should start with allowing farming families to make more of their own decisions about crops.<sup>4</sup>

A process to move away from the antiquated system of classifications and allow greater self-determination of farmers should involve community participation to ensure the new approach is appropriate for farmers' needs and is "accompanied by sufficient education of communities and government officials alike so rules are understood and officials are confident" to ensure the new definitions of agricultural land are matched by the corresponding freedom to farm on the ground.<sup>5</sup> Some of the most salient arguments for this new approach to defining farmland are outlined below. They fall roughly into the categories of economic arguments, international rights movements, and climate change adaptation.

## ECONOMIC

Allowing farmers to shift crops and livestock within agricultural land can result in higher overall productivity and economic growth, areas in which Burma has fallen behind its neighbors.<sup>6</sup> As a recent white paper characterized it, "investing in rural infrastructure and establishing policies to encourage their farmers to produce products that meet market needs will unleash a virtuous circle of growth among farmers, food processors, and service providers who are linked to growing urban centers and export markets."<sup>7</sup> Current government policy emphasizes the planting of staple crops such as rice, while other crops, livestock, and land-based aquaculture offer more rapidly growing market opportunities for smallholders, especially as increasingly urban consumers move away from a rice-focused diet.<sup>8</sup>

Without the ability to diversify to incorporate higher value crops in addition to staples, rural growth is stunted.<sup>9</sup> With some markets more volatile than others, it can be important for a farm's stability to cultivate different crops on the same land or even incorporate fish ponds or livestock pens. Lifting restrictions on land use within agriculture would allow farmers to make decisions based on changing markets and family needs – decisions that are currently overshadowed by government "encouragement" to plant certain crops and thwarted by unpredictable policies around land use choices.<sup>10</sup> Allowing farmers to choose which agricultural products they produce in order to maximize their yields and profits is the first step to modernizing smallholder farms.<sup>11</sup> Promoting diversification of farmland production systems use could greatly benefit the economy,<sup>12</sup> but government support for this diversification must start with lifting current restrictions around agricultural land use and continue with empowering diversification through non-preferential access to credit, agricultural extension, and related knowledge.<sup>13</sup>

Other countries in Asia have modernized their agricultural sectors, enabling smallholder farmers and moving away from rice-focused consumption.<sup>14</sup> These governments invested in infrastructure that

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<sup>4</sup> NATIONAL ECONOMIC AND SOCIAL ADVISORY COUNCIL (NESAC), FROM RICE BOWL TO FOOD BASKET: THREE PILLARS FOR MODERNIZING MYANMAR'S AGRICULTURAL AND FOOD SECTOR, White Paper ii (April 6, 2016).

<sup>5</sup> NAMATI & LANDESA, RECOMMENDATIONS FOR IMPLEMENTATION OF PRO-POOR LAND POLICY AND LAND LAW IN MYANMAR: NATIONAL DATA AND REGIONAL PRACTICES 27 (Oct. 2015).

<sup>6</sup> Stephen Haggblade et al, *Strategic Choices Shaping Agricultural Performance and Food Security in Myanmar*, Journal of International Affairs 60 (Spring/Summer 2014), [http://www.isis.org.my/attachments/commentaries/2014/SH\\_et\\_al\\_LW\\_Jnl\\_Intern\\_Affairs\\_2014.pdf](http://www.isis.org.my/attachments/commentaries/2014/SH_et_al_LW_Jnl_Intern_Affairs_2014.pdf).

<sup>7</sup> NESAC, *supra* note 4, at v.

<sup>8</sup> *Id.* See also Haggblade, *supra* note 6.

<sup>9</sup> Belton et al, *You Can Have Your Rice and Eat Fish Too: Rice, Fish, Land Use Trade-Offs and Food Security in Myanmar and Bangladesh*, Michigan State University, Myanmar Development Resource Institute, & International Food Policy Research Institute, [http://fsg.afre.msu.edu/fsp/burma/GFS\\_Poster\\_06\\_10\\_15.pdf](http://fsg.afre.msu.edu/fsp/burma/GFS_Poster_06_10_15.pdf).

<sup>10</sup> Haggblade, *supra* note 6, at 65.

<sup>11</sup> NESAC, *supra* note 4, at vii.

<sup>12</sup> Haggblade, *supra* note 6, at 67.

<sup>13</sup> Tin Htut Oo, *Devising a New Agricultural Strategy to Enhance Myanmar's Rural Economy*, in MYANMAR'S TRANSITION: OPENINGS, OBSTACLES, AND OPPORTUNITIES (Nick Cheesman, Monique Skidmore, & Trevor Wilson, Eds.) 157-58 (2012); NESAC, *supra* note 4, at vii.

<sup>14</sup> NESAC, *supra* note 4, at 2.

directly benefitted the agricultural sector and released pro-peasant farmer policies, like the policies expected in Burma.<sup>15</sup> Crop choice regulations in other Asian countries have dropped off so dramatically that none remain outside of Burma<sup>16</sup>. For example, Taiwan has experienced more smallholder production growth in high value crops—fruit, vegetables, and livestock—than in staple crops like those supported by the Burmese government.<sup>17</sup> In Bangladesh, rice yields have grown significantly faster than they have in Burma. While reported paddy yields are similar between the neighbors, alternative sources suggest that Burma’s paddy yield average is lower than publicly stated.<sup>18</sup> Growth in Bangladesh has been smallholder-driven, with intercropping and private irrigation at the fore.<sup>19</sup> Land use restrictions in Burma make intercropping illegal and private irrigation unaffordable. USAID recommended that Burmese farmers diversify into higher value crops in the summer season when available water is too sparse for rice cultivation, but even this requires an official exemption from the rice-only requirements of paddy land use.<sup>20</sup>

While the government is not responsible for providing farmers with agriculture loans, it can and should create an enabling environment for the private sector to do so.<sup>21</sup> Current restrictions on some loans limit access for non-paddy farmers or give paddy farmers better rates, stacking the deck against smallholder farmers seeking to expand their output options. Little formal credit is available to non-paddy farmers, including fish farmers who need to buy feed and incur other costs to start their businesses. Since formal loans are reserved for paddy farmers, other farmers turn to loan sharks and other unappealing loan terms, like buying feed on credit and paying the loan shark back with the harvested fish. Smallholder fish farmers often borrow from informal lenders at 4-6% interest per month if they don’t buy feed from large fish traders at 3% interest monthly.<sup>22</sup> Allowing better access to formal credit for fish farmers and other non-paddy farmers can bring down the interest rates of informal lenders and give smallholder farmers real opportunity to increase the productivity and efficiency of their farms.

As income levels rise in Burma, fish consumption is expected to rise significantly—on average, as household expenditure climbs by a fifth, the amount of fish consumed per capita also rises 16%, particularly from farmed fish sources.<sup>23</sup> Burma is already seen as a “rice fish culture.”<sup>24</sup> Increasing consumption will mean even more demand for farmed fish, as capture-fish will decline in relative market share in the wake of the increased demand.<sup>25</sup> Farmed fish in Burma has massive potential for growth as the market becomes more smallholder-inclusive.<sup>26</sup> If Burmese consumption trends follow the rest of Asia, the diversity of the Burmese diet will greatly increase in the coming years, opening up domestic markets not only for fish, but also for a variety of other high-value crops and livestock.<sup>27</sup>

Most fish farms are located on land previously classified as paddy land, with flood control schemes in the 1990s helping to make paddy land more suitable for fish farming.<sup>28</sup> Some economists have even

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<sup>15</sup> *Id.* at 5-6.

<sup>16</sup> *Id.* at 6.

<sup>17</sup> NAMATI & LANDESA, *supra* note 5, at 7.

<sup>18</sup> Belton, *supra* note 9.

<sup>19</sup> *Id.*

<sup>20</sup> LARRY C.Y. WONG & EH MYWE AYE WAI, RAPID VALUE CHAIN ASSESSMENT: STRUCTURE AND DYNAMICS OF THE RICE VALUE CHAIN IN MYANMAR, Background Paper No. 6, 43 (March 2013), [http://www.burmalibrary.org/docs22/Ref\\_Doc\\_Background\\_Paper\\_6\\_Rapid\\_Value\\_Chain\\_Assessment\\_Mar2013.pdf](http://www.burmalibrary.org/docs22/Ref_Doc_Background_Paper_6_Rapid_Value_Chain_Assessment_Mar2013.pdf).

<sup>21</sup> NESAC, *supra* note 4, at vii.

<sup>22</sup> BEN BELTON ET AL., AQUACULTURE IN TRANSITION: VALUE CHAIN TRANSFORMATION, FISH AND FOOD SECURITY IN MYANMAR, International Development Working Paper 139, 6-7 (Dec. 2015).

<sup>23</sup> *Id.* at 4.

<sup>24</sup> *Id.* at 8.

<sup>25</sup> As demand grows, availability of farmed-fish rises on average by 34% while capture-fish increases by 10%. *Id.* at 4.

<sup>26</sup> *Id.* at 7.

<sup>27</sup> NESAC, *supra* note 4, at 3.

<sup>28</sup> BELTON, *supra* note 22, at 5.

characterized lands suited to cultivating rice as the ideal fish farms.<sup>29</sup> In neighboring Bangladesh, most fish ponds are situated on paddy land as well. Unfortunately, current regulations make it difficult to convert paddy land into fish farms in Burma, halting the progress of those who would otherwise enter the market.<sup>30</sup> These restrictions also decrease land tenure security for farmers who risk circumventing the system for higher profit margins. In Mon State, enforcement of land use restrictions is so strict that smallholder fish farming has not developed; in other states, “informal” relaxation of regulations has allowed fish farms to thrive.<sup>31</sup> These unpredictable and often strict restrictions are a major constraint to the widespread development of a smallholder aquaculture sector.<sup>32</sup> While large corporations have been allowed to open fish farms under government sanctioned conversion of “wastelands,” smallholders have been left behind.<sup>33</sup> Economists predict that lifting restrictions on paddy conversion could expand the currently growing fish farm market significantly.<sup>34</sup> There are, however, concerns relating to the environmental risks associated with aquaculture expansion.

Currently, aspiring fish farmers in Burma rarely rent land for fish farms due to land insecurity concerns, rendering smallholder fish farming relatively uncommon. While satellite photos revealed more than 200,000 backyard ponds in the southern Delta that are increasingly used as fish ponds, these ponds are largely used for home consumption purposes.<sup>35</sup> Economists predict that the potential loss of rice area to aquaculture resulting from liberalizing land use in Burma would likely be 2.1% or less.<sup>36</sup> Since rice production is still mandated on paddy land, this liberalization would require a change in land use titling for aquaculture, which is considered a non-agricultural land use under current classifications.<sup>37</sup> The NLUP, however, categorizes aquaculture land as agricultural land, streamlining classification and improving land tenure security for would-be fish farmers.

Making farms more profitable by removing specific use restrictions can also help spur the economy through greater labor demands. For example, aquaculture requires a much higher labor input (10 persons per day per acre) than paddy (4 persons per day per acre).<sup>38</sup> The supply chain would also have to be expanded, with jobs in transportation of fish, manufacture of ice and feed, and sales.<sup>39</sup> To make this effective, restrictions on domestic trade and transportation of fish should be removed.<sup>40</sup> Allowing the legal and seamless conversion of paddy lands with low productivity yields could generate employment opportunities for landless farmers.

Liberalizing land use conversion procedures can help decrease the landless population in Burma. Some “landless” individuals and groups have been cultivating land for decades, but that land is classified as forest land or vacant/fallow/virgin land, not agricultural land.<sup>41</sup> Official conversion—a lengthy and complex process—is required before the land can be classified as farmland and registered to the farmer.<sup>42</sup> Both farmers and officials can find these requirements too difficult; obstacles cited for failure to reclassify land include the confusing rules, onerous process, and government officials fearing lack of

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<sup>29</sup> Belton, *supra* note 9.

<sup>30</sup> The 1989 Aquaculture Law promoted the conversion of vacant/fallow/virgin land to fish ponds, but the relative lack of virgin land in the Delta led to fish farms incorporating paddy land. BELTON, *supra* note 22, at 5.

<sup>31</sup> *Id.* at 5, 7.

<sup>32</sup> P. Edwards, *Rural Aquaculture in Myanmar*, *Aquaculture Asia Magazine* 10(2): 5-16 (2005).

<sup>33</sup> BELTON *supra* note 22, at 8.

<sup>34</sup> *Id.* at 6.

<sup>35</sup> *Id.* at 5.

<sup>36</sup> A comparison with neighboring Bangladesh, which has few land use restrictions, suggests that liberalizing the land use market in Burma would only increase the current aquaculture land use from the current 1.1% share of rice area to 3.2%. Belton, *supra* note 9.

<sup>37</sup> BELTON, *supra* note 22, at 93.

<sup>38</sup> *Id.* at 72.

<sup>39</sup> *Id.* at 4, 6.

<sup>40</sup> *Id.* at 101.

<sup>41</sup> NAMATI & LANDESA, *supra* note 5, at 7.

<sup>42</sup> *Id.* at 27.

authority.<sup>43</sup> Payments of informal fees and bribes are not uncommon in this system ripe for corruption. Simplifying conversion of land from one use type to another will benefit those who are already adding to the nation’s agricultural production without any land tenure security benefits, as well as streamline government processes and cut down on backroom deals. The improvement of land tenure security is proven to have positive effects on productivity stemming from farmer investment in land.<sup>44</sup>

## INTERNATIONAL RIGHTS MOVEMENTS

There is a growing international movement for food sovereignty, or allowing farmers to have greater autonomy and control over their crops and fields and to make their own farming decisions.<sup>45</sup> Food sovereignty, by definition, ensure “that the rights to use and manage lands, territories, water, seeds, livestock and biodiversity are in the hands of those who produce food.”<sup>46</sup> La Via Campesina, an organization representing more than 200 million smallholder farmers worldwide, advocates for food sovereignty and agroecology—allowing farmers to pursue traditional farming methods to improve food security, production, and the carrying on of tradition.<sup>47</sup> Classifying land specific to one crop or use does not allow for practices such as intercropping, a common traditional farming practice that can improve farm resilience to crop failure through the viability of other crops grown in the same area or the benefits one crop can give another, helping prevent negative effects in bad conditions.<sup>48</sup> La Via Campesina suggests that peasant-based sustainable farming systems based on agroecology and a food sovereignty concept can fill the gaps left by big agricultural producers.<sup>49</sup>

This model is dependent on responsible farming by smallholders, but responsible farming that could also be profitable—it is dependent on principles like crop diversity and diversification of the agroecosystem in time and space through rotational crop systems.<sup>50</sup> This concept of functional biodiversity with diversified production requires the healthy integration of crops, trees, and livestock—integration that is illegal under the current system of land classification in Burma. La Via Campesina youth in Southeast Asia and East Asia specifically oppose monoculture farming practices for the potential negative impacts of heavy indebtedness for poor families and loss of farming land.<sup>51</sup>

Additionally, one can draw on the Voluntary Guidelines for the Responsible Governance of Tenure (VGGT) to support claims of farmers to use their lands for agricultural purposes.<sup>52</sup> The guidelines, drafted by the Food and Agricultural Organization of the UN in cooperation with other stakeholders, encourage states to allow access to land, fisheries, and forests for indigenous peoples, peasants, and those who rely upon land for their livelihood, whether formally recognized or not.<sup>53</sup> The VGGT also support agroecological approaches to farming<sup>54</sup> and stipulate that “Spatial planning should take duly into

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<sup>43</sup> *Id.*

<sup>44</sup> *Id.* at 7.

<sup>45</sup> *International Forum for Agro-Ecology*, Selingue, Mali 2-3 (Feb. 24-27, 2015), <http://www.foodsovereignty.org/wp-content/uploads/2015/10/NYELENI-2015-ENGLISH-FINAL-WEB.pdf>.

<sup>46</sup> La Via Campesina, *What is La Via Campesina?*, (Feb. 9, 2011), <https://viacampesina.org/en/index.php/organisation-mainmenu-44/what-is-la-via-campesina-mainmenu-45>.

<sup>47</sup> Busani Bafana, *The Beating Pulse of Food Security in Africa*, Inter Press Service (Oct. 12, 2016), <http://www.ipsnews.net/2016/10/the-beating-pulse-of-food-security-in-africa/>.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.* at 1.

<sup>50</sup> *Id.* at 2.

<sup>51</sup> La Via Campesina, *South East Asia: La Via Campesina Youth, The Seed of Hope* (Nov. 19, 2007), <https://viacampesina.org/en/index.php/news-from-the-regions-mainmenu-29/439-south-east-asia-la-via-campesina-youth-the-seed-of-hope>.

<sup>52</sup> INTERNATIONAL PLANNING COMMITTEE FOR FOOD SOVEREIGNTY (IPCFS), *PEOPLE’S MANUAL ON THE GUIDELINES ON GOVERNANCE OF LAND, FISHERIES, AND FORESTS: A GUIDE FOR PROMOTION, IMPLEMENTATION, MONITORING, AND EVALUATION* 20 (2016), <http://www.foodsovereignty.org/wp-content/uploads/2016/06/peoplesmanual.pdf>.

<sup>53</sup> *Id.* at 18, 21.

<sup>54</sup> FAO, *VOLUNTARY GUIDELINES ON THE RESPONSIBLE GOVERNANCE OF TENURE OF LAND, FISHERIES, AND FORESTS IN THE CONTEXT OF NATIONAL FOOD SECURITY* vi (2012), <http://www.fao.org/docrep/016/i2801e/i2801e.pdf>.

account the need to promote diversified sustainable management of land, fisheries and forests, including agro-ecological approaches and sustainable intensification, and to meet the challenges of climate change and food security.”<sup>55</sup> The VGGT also include a responsibility of the government to support smallholders through access to credit, crop insurance, and agricultural extension.<sup>56</sup>

In Burma, domestic food security is dependent on the production of fish, which functions as the leading animal protein source in the country.<sup>57</sup> Making fish available and affordable in Upper Burma, where there is a shortage due to a lack of smallholder fish farming, is important to national nutrition and food security and is unlikely without relaxation of agricultural land use restrictions.<sup>58</sup> For food security and agricultural rights, holders of land use certificates (LUCs) should be allowed legal freedom of crop choice and agriculture production without onerous use conversion applications or prohibitions on converting paddy land.<sup>59</sup>

## CLIMATE CHANGE

Climate change is already having a profound effect in Southeast Asia, and the effects are expected to worsen in the coming years, particularly for farmers.<sup>60</sup> Rice yield potential across the region is expected to decline by up to 50% from 1990 levels by 2100, so paddy farmers will be particularly exposed to risk.<sup>61</sup> Protection of agriculture through climate change mitigation, resilience, and adaptation will be essential to the long-term growth of Burma and the wellbeing of smallholders.

Other Southeast Asian countries are already taking steps to combat climate change. Cambodia is developing pilot projects aimed at enhancing climate resilient water infrastructure as well as restoring mangrove ecosystems for mitigation purposes.<sup>62</sup> Indonesia is taking a more agriculture-focused approach, with emphasis on forestry and land use change toward improved food security, decreased emissions, and resilience.<sup>63</sup> The Philippines has seen an increasing rate of conversion from forest to agricultural land as climate change displaces farmers.<sup>64</sup> Without mechanisms in place to legally recognize evolving tenure realities while simultaneously ensuring sustainable use of resources, these farmers could become landless. As an alternative in other nations, steps are being taken to improve forest tenure instead of converting forests to cultivated land.

The FAO recommends that Southeast Asian countries adopt adaptation measures to reduce the impacts of climate change and enhance food security. Suggestions include modification of farming practices, diversification and development of stress-resistant crops, improved soil conservation and water management, and enabling policy environments.<sup>65</sup> In Burma, these steps are best taken by first clarifying the enabling policy (a new agricultural land classification system) and then encouraging farmers to adopt the measures listed above. As land tenure security increases, farmers are more likely to take steps to

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<sup>55</sup> *Id.* at 32.

<sup>56</sup> *Id.* at 24.

<sup>57</sup> BELTON, *supra* note 22, at 3; Belton, *supra* note 9.

<sup>58</sup> BELTON, *supra* note 22, at 97.

<sup>59</sup> *Id.* at 99.

<sup>60</sup> ASIAN DEVELOPMENT BANK, CLIMATE CHANGE IN SOUTHEAST ASIA: FOCUSED ACTIONS ON THE FRONTLINES OF CLIMATE CHANGE (2016), [http://innovation.brac.net/fif2016/images/library/climate-change-sea\\_ADB.pdf](http://innovation.brac.net/fif2016/images/library/climate-change-sea_ADB.pdf).

<sup>61</sup> *Id.* at 5.

<sup>62</sup> *Id.* at 16-17.

<sup>63</sup> *Id.* at 18-19.

<sup>64</sup> *Id.* at 22-23.

<sup>65</sup> World Bank & Food and Agriculture Organization (FAO), *Climate Change Adaptation in Agricultural Investment in East Asia and the Pacific: Issues and Options*, Workshop Highlights 6 (May 16-17, 2011).

protect their land for years to come, which can both mitigate climate change effects and increase resilience for individual farms.<sup>66</sup>

As severe floods and cyclones worsen alongside severe droughts, adaptability and resilience of farms are increasingly important.<sup>67</sup> Not only will water and heat stresses plague farms, but pests are expected to multiply as well, with the capacity to devastate crops even in good weather years.<sup>68</sup> Liberalizing current land use regulations and expanding the definition of agricultural use will allow farmers to take the steps needed to make their farms more environmentally stable and resilient to storms. Additionally, if one crop is negatively affected by climate change, another can compensate for its loss, saving the farmer from financial devastation.

Intercropping can have positive effects on climate change resilience, especially when one of the crops fixes nitrogen or sequesters carbon. Cowpeas, for example, are both very drought-tolerant and help fix nitrogen in the soil, making the peas climate resilient and also benefitting neighboring crops' resiliency.<sup>69</sup> Reintegrating livestock and agriculture production can also help decrease the use of chemical fertilizers and slow climate change.<sup>70</sup> Planting trees alongside other crops can help with climate change mitigation through carbon sequestration and protect more fragile crops from the elements.<sup>71</sup> A case study by La Via Campesina found that complex systems – intercropped or rotational cropped systems – suffered about 50% loss in a hurricane, while neighboring monoculture systems suffered losses upwards of 80%.<sup>72</sup> The multiple layer farms also recovered their yield potential more quickly than their neighbors.

In order to adapt quickly to the changing environmental conditions of a climate change reality, farmers must be able to make the crop decisions that make sense for them without onerous government bureaucracy slowing down the process. This freedom of choice can benefit more than individual farmers. Lack of tenure security and property rights is identified as a factor negatively affecting the adoption of sustainable land management practices in Southeast Asia.<sup>73</sup> Southeast Asia could help reduce the negative effects of climate change by half through liberalized food markets, according to a new study by the Potsdam Institute for Climate Impact Research.<sup>74</sup> Government support of legal crop choice freedom through agricultural land use liberalization will incentivize climate change resilience and adaptation.

## **BASIS FOR THE RIGHT TO CROP SELECTION**

Permitting farmers to choose what they grow, in addition to supporting broader agriculture production decision-making processes, can have benefits that go far beyond the individual farmer's wellbeing. Crop selection freedom is linked to important economic and environmental impacts, such as higher agricultural yields, improved climate change resilience, and increased market stability.

## **ECONOMIC**

A number of economic arguments can be made for crop selection freedom. The arguments below fall into two broad categories: benefits of land-secure farmers and benefits of crop diversity.

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<sup>66</sup> Long-term soil carbon conservation requires adoption of land management practices that can yield long-term returns but require up-front costs that often do not make financial sense to land-insecure smallholders. Lisen Runsten & Marja-Liisa Tapio-Bistrom, LAND TENURE, CLIMATE CHANGE MITIGATION AND AGRICULTURE (June 2011), <http://www.fao.org/climatechange/30353-0c11859e8b0cac7aabe39520498b2df22.pdf>.

<sup>67</sup> M. Stevanović et al, *The impact of high-end climate change on agricultural welfare*, SCIENCE ADVANCES (Aug. 2016), <http://advances.sciencemag.org/content/2/8/e1501452.full>.

<sup>68</sup> World Bank & FAO, *supra* note 65, at 11.

<sup>69</sup> Bafana, *supra* note 47.

<sup>70</sup> GRAIN, *Food and climate change: the forgotten link* (Sept. 2011), <https://www.grain.org/article/entries/4357-food-and-climate-change-the-forgotten-link>.

<sup>71</sup> ASIAN DEVELOPMENT BANK, *supra* note 60, at 6.

<sup>72</sup> LA VIA CAMPESINA, *supra* note **Error! Bookmark not defined.**, at 11.

<sup>73</sup> World Bank & FAO, *supra* note 65, at 11-12.

<sup>74</sup> Stevanović, *supra* note 67.

Before the proposed reforms can bear fruit, however, additional steps for economic growth must be taken. Agricultural production in Burma has fallen behind that of countries with better access to agriculture extension, credit, irrigation, enhanced seeds, and fertilizer, including nearby Cambodia and India.<sup>75</sup> Supporting diversification and increased production will require investment by the government.<sup>76</sup> Crop choice freedom and other land reforms are only viable if they are carried out alongside agricultural extension services and credit access.<sup>77</sup> Currently loans from the Myanmar Agricultural Development Bank (MADB) favor rice farmers, offering loans of up to 100,000 kyat per acre to the 20,000 kyat per acre for non-rice farmers, which greatly disincentivizes diversification on an individual level.<sup>78</sup> Policies must be drawn into line with the proposed reforms in order to result in growth for individual productivity and the economy as a whole.

### *Land Tenure Security Benefits*

Restrictions on crop choice can have significant negative impacts on a farmer's land tenure security. Current restrictions make it illegal for farmers to deviate from growing certain crops, even when the allowed crops are unprofitable. Land and labor profits for pulses and oilseeds are in general higher than profits for paddy. A 2013-14 agricultural survey in Burma showed that the net margin per hectare and labor productivity per day was greater for crops such as sunflower seeds and groundnuts than for paddy.<sup>79</sup> Giving farmers crop choice freedom gives them increased opportunity to have successful growing seasons and removes the potential disaster of choosing between legal, unprofitable crops and illegal, profitable crops. Additionally, removing crop type restrictions could encourage non-paddy farmers to apply for LUCs, greatly improving their land tenure security.

Providing increased land tenure security for smallholders is also critical to incentivizing farmers to invest in their land. Farmer investments in productivity improvements come only when the farmer is not worried that improved land could be confiscated. Government support for smallholder land rights is important for strengthening this perceived and legal security of tenure.<sup>80</sup> Further, research shows that small farms are often more efficient and productive than larger farms, with government support for rights further improving their productivity in a wide range of settings.<sup>81</sup>

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<sup>75</sup> MERCY CORPS, *AGRARIAN TRANSITIONS IN TWO AGROECOSYSTEMS OF KAYAH STATE, MYANMAR* (Nov. 2013),

[http://www.burmalibrary.org/docs22/Report\\_Agrarian\\_Transitions\\_Diagnosis\\_in\\_Kayah\\_State\\_Mercy\\_Corps\\_Nov2013.pdf](http://www.burmalibrary.org/docs22/Report_Agrarian_Transitions_Diagnosis_in_Kayah_State_Mercy_Corps_Nov2013.pdf).

<sup>76</sup> Than Tun, Adam Kennedy, & Ulrike Nischan, *Promoting Agricultural Growth in Burma: A Review of Policies and an Assessment of Knowledge Gaps*, Feed the Future: U.S. Government Global Hunger and Food Security Initiative, Research Report #5 p. 2 (Nov. 2015), [http://fsg.afre.msu.edu/fsp/burma/Research\\_Paper\\_5\\_Promoting\\_Agricultural\\_Growth.pdf](http://fsg.afre.msu.edu/fsp/burma/Research_Paper_5_Promoting_Agricultural_Growth.pdf).

<sup>77</sup> Currently, MADB borrowing is geared toward landholders and there are restrictions on maximum borrowing that are arguably insufficient for high-quality crops. Tun, *supra* note 76, at 9, 12-13. Irrigation schemes are also tailored toward rice production to the detriment of higher-value crops. International Water Management Institute (IWMI), *Improving water management in Myanmar's dry zone for food security, livelihoods and health* (2015).

"The second crucial element in the five Asian successes was the support of these new land secure smallholder farmers with agricultural extension services. Agricultural extension services are essential to building confident and capable farming families, and they must be regularly accessible. In Japan in the 1940s, for example, these services were so pervasive that the government provided one extension worker, or trainer, per village. This technical advice on planting, cultivation, seeds, irrigation, soil, animal husbandry and many other subjects were a critical piece of these nations' growth." LANDESA & NAMATI, *supra* note 5, at 13. Similarly, BASIX in India is an example of extension services adapted to the agro-climatic zones and tied to inputs and credit. V. Mahajan & K. Vasumathi, *Combining Extension Services with Agricultural Credit: The Experience of BASIX India*, 2020 Focus 18, Brief 13, International Food Policy Research Institute (2010).

<sup>78</sup> Tun, *supra* note 76, at 12. If the MADB allowed farmers in Kayah State to access credit to plant rubber trees, for instance, these farmers could profitably sell latex to China, where rubber cannot be grown. MERCY CORPS, *AGRARIAN TRANSITIONS IN TWO AGROECOSYSTEMS OF KAYAH STATE, MYANMAR* (Nov. 2013),

[http://www.burmalibrary.org/docs22/Report\\_Agrarian\\_Transitions\\_Diagnosis\\_in\\_Kayah\\_State\\_Mercy\\_Corps\\_Nov2013.pdf](http://www.burmalibrary.org/docs22/Report_Agrarian_Transitions_Diagnosis_in_Kayah_State_Mercy_Corps_Nov2013.pdf).

<sup>79</sup> WORLD BANK, *MYANMAR: ANALYSIS OF FARM PRODUCTION ECONOMICS* xx (Feb. 26, 2016),

<http://documents.worldbank.org/curated/en/509581468181132091/pdf/100066-ESW-P144951-Box394886B-PUBLIC-MM-Farm-Production-Economics-online-version.pdf>.

<sup>80</sup> K. Deininger et al., *Tenure Security and Land-Related Investment: Evidence from Ethiopia*, World Bank (2013).

<sup>81</sup> Landesa, *Smallholder Farming and Achieving Our Development Goals*, Issue Brief (July 2014), <https://www.landesa.org/wp-content/uploads/Issue-Brief-Smallholder-Farming-and-Achieving-Our-Development-Goals.pdf>; Hazell

High costs of production and low prices for product can disincentivize farmers from producing crops at all.<sup>82</sup> In such a climate, jeopardizing land tenure for farmers whose lands do not profitably produce rice does not benefit rice production but rather pushes farmers into land tenure insecurity. Allowing diversification of crops toward those requiring less water is more resilient and pro-production. Paddy is often less profitable and more costly to produce than other crops during the cool and dry seasons.<sup>83</sup> In 1997-98, summer paddy production fell markedly, which could be explained by low rice prices not justifying costly pump irrigation, and farmers choosing to produce less instead of spending more to eventually yield a lower price.<sup>84</sup>

With more farmers secure in their land tenure, crop choice freedom could help develop value chains offering employment opportunities to landless populations. As higher-value export crops are developed, the markets for higher-value consumer products typically expand, producing jobs.<sup>85</sup>

### *Crop Diversity Benefits*

Aside from direct farmer benefits, crop diversification has been proven to lead to higher productivity and stability. Multicropping, intercropping, alley farming, rotation and cover crops have been shown to have positive effects on productivity and yield stability.<sup>86</sup> On a micro-plot level, households that can diversify into market gardening have been found to have higher value added per hectare than that of rice-only households.<sup>87</sup> Vietnam, Laos, Cambodia, and Thailand all have successful rice-corn cropping systems;<sup>88</sup> China and India have found crop diversification to be suitable to geographically diverse farmland.<sup>89</sup> In Kenya, participation in a polyculture system using plants as trap crops on the borders of maize fields to repel pests has led to an increase in maize yield from 37% to 129% without the use of pesticides.<sup>90</sup>

In Kayin state, some farmers already use a mixed cropping system to maintain diversity and high yields. Bulbs and vines are planted with rice. In upland rice distribution, farmers attach seeds of herbs and flowers to rice-planting spades to distribute these along with the rice. Other crops grown include chilies, eggplant, tomato, millet, cassava, fruit, pumpkin, and peas. Sugarcane is increasingly used as a cash crop.<sup>91</sup>

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et al., *The Future of Small Farms for Poverty Reduction and Growth*, International Food Policy Research Institute (2007); S. Wiggins, J. Kirsten, & L. Lambi, *The Future of Small Farms*, *WORLD DEVELOPMENT* 38 (10): 1341-1348 (2010).

<sup>82</sup> Tun, *supra* note 76, at 17; WORLD BANK, *supra* note 79, at 57.

<sup>83</sup> Ngoc Luan Nguyen, *Report on the Workshop on the South East Asian agri benchmark Rice Network*, Working Paper, Agri Benchmark (May 2013), <http://www.agribenchmark.org/fileadmin/Dateiablage/B-Cash-Crop/Working-Paper/cc-1305-RiceWS-Luan.pdf>; WORLD BANK, *supra* note 79.

<sup>84</sup> K. Fujita & I. Okamoto, *Agricultural Policies and Development of Burma's Agricultural Sector: An Overview*, IDE Discussion Paper 63, Chiba, Japan: Institute for Developing Economies (2006).

<sup>85</sup> D. Byerlee, Dolly Kyaw, U San Thein, & L Seng Kham, *Agribusiness Models for Inclusive Growth in Myanmar: Diagnosis and Ways Forward*, MSU International Development Working Paper 133 (2014).

<sup>86</sup> FOOD AND AGRICULTURE ORGANIZATION (FAO), *BIODIVERSITY FOR FOOD AND AGRICULTURE: CONTRIBUTING TO FOOD SECURITY AND SUSTAINABILITY IN A CHANGING WORLD 25-26* (2011), [http://www.fao.org/fileadmin/templates/biodiversity\\_paia/PAR-FAO-book\\_lr.pdf](http://www.fao.org/fileadmin/templates/biodiversity_paia/PAR-FAO-book_lr.pdf).

<sup>87</sup> MERCY CORPS, *supra* note 78.

<sup>88</sup> Nguyen, *supra* note 83.

<sup>89</sup> ZUO MENXIAO, *CROP DIVERSIFICATION IN THE ASIA-PACIFIC REGION*, FAO (March 2001), <ftp://ftp.fao.org/docrep/fao/003/x6906e/x6906e00.pdf>; D. Dawe, *Agricultural Transformation of Middle-Income Asian Economies: Diversification, Farm Size and Mechanization*, World Bank, Farmgate to Market Study on Managing the Agri-Food Transition in East Asia (2015).

<sup>90</sup> LA VIA CAMPESINA, *supra* note **Error! Bookmark not defined.**, at 7.

<sup>91</sup> THE KAREN ENVIRONMENTAL AND SOCIAL ACTION NETWORK, *DIVERSITY DEGRADED: VULNERABILITY OF CULTURAL AND NATURAL DIVERSITY IN NORTHERN KAREN STATE, BURMA 26* (Dec. 2005), [http://www.burmalibrary.org/docs13/KESAN-diversity\\_degraded-en-op7550.pdf](http://www.burmalibrary.org/docs13/KESAN-diversity_degraded-en-op7550.pdf).

Diversifying crops additionally helps avoid market risks, which is beneficial for both individual farmers and the overall economy. Currently, agricultural exports in Burma are concentrated on pulses, rice, and rubber, which amount to 65%, 16%, and 13% of exports respectively. With nearly 70% of pulses exported to India, exports rely heavily on India's productivity gap, which is an unnecessarily high risk.<sup>92</sup> Shared borders with more developed economies and Association of Southeast Asian Nations (ASEAN) trade agreements could facilitate growth in exports of high-value commodities and processed products.<sup>93</sup> MADB, similarly, can insulate itself from risk of default in years with low rice profitability if it lends to farmers producing diverse crops.<sup>94</sup>

World rice consumption is expected to fall as incomes rise in many countries. Vegetable oils, livestock products, and fruit are higher-income food choices. Although rice consumption is currently stable in Asia (80% of the market), the overall budget share spent on rice is dropping. Increases in African consumption of rice has led to increased demand for Asian rice, but rice production in Africa is improving and the fate of Asian surplus rice on the African continent depends on the productivity of African rice farmers.<sup>95</sup> The long-term result could very likely be a decrease in demand for Asian rice going forward.

Freedom of crop selection will allow states with high rice productivity to continue to produce rice while other states diversify. A 2010 study by the Ministry of Agriculture found that Sagaing, Shan State, and Bago had the highest rice yields, while Kayin and Chin had the lowest.<sup>96</sup> These results show that dry season paddy can compete with other crops, but only in some ecoregions of Burma.<sup>97</sup> Similarly, Vietnam's economic liberalization in the 1980s coincided with a rise in rice yields along the Mekong Delta after the removal of rice quotas.<sup>98</sup>

## LEGAL

The recently enacted NLUP offers several rights-based arguments for crop choice freedom. In section 8(I), crop selection freedom is listed as one of the basic principles. It reads, "To permit freedom of crop selection and adoption of cultivation technologies in a way that will not negatively affect the environment." Though environmental wellbeing is prioritized over crop selection freedom, the status of this freedom as a basic principle of the policy is unambiguous. In China, non-residual rights of farmers include freedom of crop selection. For Chinese farmers, freedom of crop selection is ensured, along with security of tenure, rental or transfer rights, conversion to alternative agricultural uses, and the right to inherit.<sup>99</sup>

Also under the NLUP, farmers have a right to land tenure security. 6(b) states that an objective of the policy is "To strengthen land tenure security for the livelihoods improvement and food security of all people in both urban and rural areas of the country. Land tenure security is threatened when farms can be taken away for crop choice reasons."

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<sup>92</sup> OECD, MULTI-DIMENSION REVIEW OF MYANMAR: VOLUME 2. IN-DEPTH ANALYSIS AND RECOMMENDATIONS 53 (2015), [http://www.keepeek.com/Digital-Asset-Management/oecd/development/multi-dimensional-review-of-myanmar\\_9789264220577-en#page55](http://www.keepeek.com/Digital-Asset-Management/oecd/development/multi-dimensional-review-of-myanmar_9789264220577-en#page55).

<sup>93</sup> Tun, *supra* note 76, at 2.

<sup>94</sup> *Id.* at 12.

<sup>95</sup> Nguyen, *supra* note 83.

<sup>96</sup> OECD, MULTI-DIMENSION REVIEW OF MYANMAR: VOLUME 2. IN-DEPTH ANALYSIS AND RECOMMENDATIONS 52, Box 2.2 (2015), [http://www.keepeek.com/Digital-Asset-Management/oecd/development/multi-dimensional-review-of-myanmar\\_9789264220577-en#page55](http://www.keepeek.com/Digital-Asset-Management/oecd/development/multi-dimensional-review-of-myanmar_9789264220577-en#page55); WORLD BANK, BURMA: ANALYSIS OF FARM PRODUCTION ECONOMICS (Feb. 26, 2016), <http://documents.worldbank.org/curated/en/509581468181132091/pdf/100066-ESV-P144951-Box394886B-PUBLIC-MM-Farm-Production-Economics-online-version.pdf>.

<sup>97</sup> WORLD BANK, *supra* note 79, at xxi.

<sup>98</sup> Jean-François Le Coq & Guy Trébuil, *Impact of Economic Liberalization on Rice Intensification, Agricultural Diversification and Rural Livelihoods in the Mekong Delta*, Vietnam, Southeast Asian Studies Vol. 42.4, pp. 519-547 (2005).

<sup>99</sup> PETER HO, DEVELOPMENTAL DILEMMAS: LAND REFORM AND INSTITUTIONAL CHANGE IN CHINA 111 (2005).

## ECOLOGICAL

There are a variety of beneficial ecological impacts resulting from crop diversification and crop choice. Crop selection freedom allows farmers to farm sustainably, not over-taxing land when trying to grow crops that are not necessarily well-suited to the environment. Crop rotations, intercropping, and growing different varieties of a single crop can have beneficial effects on crop performance, nutrient availability, pest and disease control, and water management.<sup>100</sup> Species-rich communities are also found to have greater resource use efficiency.<sup>101</sup> Home gardens are a good example of how multi-species compositions can lead to efficient nutrient cycling and resource use while providing relatively secure livelihood support.<sup>102</sup>

In line with this connection between crop diversity and sustainability, secure land rights and agricultural productivity are essential to the Sustainable Development Goals. Secure land rights for smallholder farmers are mentioned in the sustainable development goals relating to ending poverty, achieving gender equality, increasing food security, and promoting sustainable agriculture. Specifically, the food security target calls for “double the agricultural productivity and incomes of small-scale food producers” and recommends nations “implement resilient agricultural practices” in its provisions.<sup>103</sup>

Crop choice restrictions can lead to environmental degradation, as fertilizers and pesticides are often overused in an attempt to produce the greatest results. The use of diversified crop rotations can help improve soil biodiversity, reducing the need for harmful soil additives.<sup>104</sup> Additionally, intraspecies genetic diversity, mixed cropping systems, and landscape heterogeneity can all contribute to natural pest control.<sup>105</sup> Diversified crops can also provide greater water retention in the upper soil, resulting in greater resilience to climate change effects.<sup>106</sup> Climate change, if unimpeded, could lead to agricultural losses in staple crops. One estimate found that South Asian losses of rice, millet, and maize could exceed 10% by 2030.<sup>107</sup>

Alternative farming methods, some already practiced in Burma, can have greatly beneficial effects on the environment if allowed under a crop choice freedom regime. Agroforestry systems enhance efficiency of land, reduce need for fallowing, and sequester greater quantities of carbon than other agricultural systems. Alley cropping and taungya cultivation (more common in Burma) cultivate trees and agricultural crops together. Intercropping of trees and crops is similarly practiced on 3 million hectares in China to positive effect.<sup>108</sup>

### Concerns

While the economic, legal, and ecological benefits of crop choice and crop diversity are numerous, in the Burma context the underlying concerns that led to the policy structure restricting crop choice remain. Two significant concerns are food supply and impediments to financing. In the past, government emphasis on rice production quotas led to years of pressure to grow rice, a deficit in knowledge of other agricultural practices, and depletion of soils that may lead to some crops underperforming.<sup>109</sup> This gap can be addressed in part through improved and significantly increased agricultural extension services, and agricultural inputs, provided both by the public and private sector. A second concern is the

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<sup>100</sup> FAO, *supra* note 86, at 25-26.

<sup>101</sup> M. Loreau, S. Naeem, et al., *Biodiversity and ecosystem functioning: current knowledge and future challenges*. *Science*, 294: 804-808 (2002).

<sup>102</sup> B.M. Kumar & P.K.R. Nair, *The enigma of tropical homegardens*. in *NEW VISTAS IN AGROFORESTRY*, pp. 135-152 (2004).

<sup>103</sup> United Nations, *Sustainable Development Goals* (2015), <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>.

<sup>104</sup> *Id.* at 28.

<sup>105</sup> *Id.* at 29-30.

<sup>106</sup> *Id.* at 32-34.

<sup>107</sup> D.B. Lobell, M.B. Burke, et al., *Prioritizing climate change adaptation needs for food security in 2030*. *Science*, 319 (5863): 607-610 (2008).

<sup>108</sup> FAO, *supra* note 86, at 32-34; W. Sen, *Agroforestry in China*, Ministry of Foreign Affairs, Beijing, China (1991).

<sup>109</sup> Interviews with NLD Farmers Affairs Committee Members, March 2015, Nay Pyi Taw.

inability to receive rural credit should farmers shift away from paddy, as government agricultural credit is weighted against non-paddy crops. This shortcoming can also be addressed through amendments to policies of the Ministry of Agriculture, Livestock and Irrigation, and to related legislation, freeing up rural credit for farmers who choose to grow diverse crops.

## **BASIS FOR THE RIGHT TO FALLOW**

Fallowing is “a resting period for agricultural land between two cropping cycles during which soil fertility is restored.”<sup>110</sup> Fallowing has played an important role in sustainable agriculture for thousands of years with economic, cultural, and ecological significance.

### ECONOMIC

As a result of recent shifts to unsustainable farming practices, crop yields have reduced due to declining soil fertility, weeds, and increased risk of crop loss. As observed by researchers, transforming traditional farming with fallow periods to permanent cropping, especially with a monocultural approach, may decrease biodiversity and local farmers’ self-sufficiency of nutrition, income, and health.<sup>111</sup> Declining agricultural productivity and sustainability may lead to diminished food and livelihood security, increased poverty, and social conflicts over forest and land resources. In general, system resilience and productivity decline may lead to a downward degradation spiral.<sup>112</sup>

Considering these deficits that come with unsustainable agricultural practices, farmers should be able to choose the farming technique that works best for their specific conditions, including soil condition, climate, economic constraints, and cultural traditions. In Kayin state, for example, where fallowing is no longer in common practice, agriculture has become unsustainable, resulting in a decline in soil fertility, an increase in pests and weeds, and a decrease in forest areas.<sup>113</sup>

### CULTURAL

Fallowing as part of traditional farming practices preserves a wealth of indigenous knowledge and culture.<sup>114</sup> Traditional farming practices including fallowing are a reservoir of indigenous knowledge “accumulated through centuries of trial and error,” and “play a custodial role in preserving cultural diversity.”<sup>115</sup> Biodiversity conservation policies must address cultural conservation to really succeed.<sup>116</sup>

Abandoning traditional farming may lead to disruption of cultural traditions, collective memories, and community governance. In the past several decades, due to pressure from development, a shortage of land, and deforestation, fallow periods have dramatically decreased or disappeared in many areas of Southeast Asia. This disruption has coincided with a related cultural disruption of ethnic groups that have relied on traditional farming methods. For example, in Mu Traw District of Kayin State, due to land scarcity and military prohibition, fallow periods have substantially decreased. As a result, seed varieties that Karen people historically preserved are being lost.<sup>117</sup>

### LEGAL

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<sup>110</sup> ERIKA STYGER AND ERICK C. M. FERNANDES, *Contributions of Managed Fallows to Soil Fertility Recovery*, in Norman Uphoff et.al, ed. *BIOLOGICAL APPROACHES TO SUSTAINABLE SOIL SYSTEMS* 425-437 (2006), Taylor & Francis.

<sup>111</sup> *Id.*

<sup>112</sup> Swidden Agriculture: Ancient Systems in Transition, Sustaining Food Security & Historic Disturbance Regimes, <http://www.cfc.umd.edu/rattan/files/Swidden%20agriculture.pdf>, accessed August 2, 2016.

<sup>113</sup> KESAN, *supra* note 91.

<sup>114</sup> STYGER, *supra* note 110, at 425-437.

<sup>115</sup> M. CAIRNS AND D. P. GARRITY, *Improving Shifting Cultivation in Southeast Asia by Building on Indigenous Fallow Management Strategies*, in *AGROFORESTRY SYSTEMS* 47: 37-48 (1999).

<sup>116</sup> *Id.*

<sup>117</sup> KESAN, *supra* note 91.

In some parts of Southeast Asia, farmers have started to adopt managed fallows to cope with decreased land area and shorter fallow periods and have achieved positive results.<sup>118</sup> Cambodia's land laws specifically include fallow land as part of a shifting agriculture system, and even cover some forest land.<sup>119</sup> Under current law in Burma, however, leaving land fallow can result in fines, loss of land use rights, and forcible removal of structures on fallowed land.<sup>120</sup> The Vacant, Fallow, and Virgin Lands Management Law introduced a mechanism that allows public and private sector investors to claim land that is considered fallow,<sup>121</sup> putting many farmers, especially those belonging to ethnic nationalities, in a vulnerable position.<sup>122</sup> While the government classifies fallowed land as unused, ethnic nationalities attest that vacant land "does not exist in ethnic territories."<sup>123</sup> As such, land advocacy groups call for recognition of fallow rotational farming systems as legitimate practice.<sup>124</sup>

The NLUP recognizes the importance of customary land tenure practices, including fallowing. Section 70 states, "Reclassification, formal recognition and registration of customary land use rights relating to rotating and shifting cultivation that exists in farmland, forestland, vacant land, fallow land, or virgin land shall be recognized in the new National Land Law."

## ECOLOGICAL

During a fallowing cycle, a series of chemical, physical, and biological improvements take place in the soil and restore soil organic matter, which is critical for soil fertility. In addition, erosion and leaching are minimized with the increasing of ground cover and rooting mass.<sup>125</sup>

Traditional fallowing periods usually last for 10 to 20 years with short cropping periods, usually 1 to 2 years. However, with growing population and land constraints, fallow periods have been reduced. As a result, researchers have observed soil fertility degradation and crop yields declines.<sup>126</sup>

The functions of fallow periods include weed control, breaking pest and disease cycles, and producing timber, fibers, and medicinal plants.<sup>127</sup> Fallow periods also contribute to the local ecosystem and biodiversity.<sup>128</sup> Research in Karen and Lua villages in Mae Chaem district of northern Thailand shows that the longer the fallow period is, the richer the tree species become. At the same time, bird species diversity increases as the fallow period increases.<sup>129</sup>

## Concerns

Although there are significant economic, cultural, legal, and ecological benefits from supporting farmers' rights to fallow their land, some concerns remain. These include hesitations to support fallowing because of perceived ecological impacts from slash and burn methods in some traditional fallowing practices, and the sense that land is being underutilized when allowed to fallow for several years. These

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<sup>118</sup> CAIRNS *supra* note 115, at 37–48.

<sup>119</sup> TETRA TECH, COMMUNITY LAND AND RESOURCE TENURE RECOGNITION: REVIEW OF COUNTRY EXPERIENCES - BURMA, USAID TGCC Report viii (Feb. 2016), [https://www.land-links.org/wp-content/uploads/2016/09/USAID\\_Land\\_Tenure\\_Community\\_Tenure\\_Report\\_Burma.pdf](https://www.land-links.org/wp-content/uploads/2016/09/USAID_Land_Tenure_Community_Tenure_Report_Burma.pdf).

<sup>120</sup> *Vacant, Fallow and Virgin Lands Management Law* (2012), Burma, Art. 12; USAID, COMMUNITY LAND AND RESOURCE TENURE RECOGNITION: REVIEW OF COUNTRY EXPERIENCES (2012).

<sup>121</sup> *Vacant, Fallow and Virgin Lands Management Law* (2012), Burma, Art. 4 and 5.

<sup>122</sup> TNI, THE MEANING OF LAND IN MYANMAR (2016), <https://www.tni.org/en/publication/the-meaning-of-land-in-Myanmar>.

<sup>123</sup> *Id.*; JENNY FRANCO, THE RIGHT TO LAND AT CROSSROADS IN MYANMAR (2016), <https://www.tni.org/en/article/the-right-to-land-at-crossroads-in-Myanmar>.

<sup>124</sup> TNI, CUSTOMARY LAND TENURE AND ROTATION FALLOW FARMING SYSTEM MUST BE RECOGNIZED AND PROTECTED LEGALLY (2015), <https://www.tni.org/en/pressrelease/customary-land-tenure-and-rotation-fallow-farming-system-must-be-recognized-and>; LIFT, LAND CORE GROUP STUDY ON HOW TO REGISTER CUSTOMARY LANDS UNDER SHIFTING CULTIVATION (2016), <http://www.lift-fund.org/news/knowledge-sharing-news-event/land-core-group-study-how-register-customary-lands-under-shifting>.

<sup>125</sup> STYGER, *supra* note 110, at 425-437.

<sup>126</sup> *Id.*

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Id.*

concerns can be addressed, respectively, through advising traditional farmers who use fallowing practices on more ecological methods of land clearing, and through better education of government officials about the economic value that comes with traditional fallowing practices. In addition, providing legally recognized tenure security in areas of shifting cultivation, along with other policy supports, would increase the likelihood that smallholder farmers and communities would invest in more stable agriculture production systems that are more resilient to climate change.

## **FREEDOM TO FARM AMENDMENTS TO THE FARMLAND LAW AND FORM 7 BASED ON THE NLUP**

Recommended amendments to the Farmland Law (2012) fall under several major categories: minimizing farmland utilization restrictions, clarifying women’s land rights, removing customary use restrictions, modernizing land classifications, and decriminalizing land tenure issues. The following recommendations and language have been largely borrowed from the NLUP (with the exception of decriminalization) to ensure continuity across the legal framework in this subject area. While amendments to the Farmland Law may not be feasible at this point in time, the principles in this analysis may be strategically applied to land governance related legal and regulatory reforms over time.

### UTILIZATION RESTRICTIONS

Strengthening land tenure security is a major goal of the NLUP under Chapter I (Objectives) and Chapter III (Basic Principles) (6(b), 8(a)). To this aim, amendments to the Farmland Law should incorporate language from the NLUP in 10(b), enumerating the right to freedom of crop selection, and to allow for fallowing of farmland, drawing from 8(l) and 70 of the NLUP. To bring the rest of the document in conformity with this principle, sections 12(h) and 12(i) should be stricken from Chapter IV that prohibits growing of alternative crops and the fallowing of land without permission, and from Chapter X that addresses applications for permission to grow alternative crops. As a result of these amendments, the conditions on the LUC restricting crop types and fallowing would be void. The removal of the restriction on fallowing is also described the section on customary use.

To further protect land tenure security, particularly of smallholder farmers, all references to use of land “within the stipulated manner” should be changed to “for agricultural purposes,” ensuring that the law is read to allow all agricultural use of any farmland in question. Additionally, “shall apply” for an LUC or registration should be changed to “may apply” to allow farmers to work their land securely before obtaining an LUC. These small changes would reflect the NLUP, which lists protection of legitimate land tenure rights, with particular attention to smallholder farmers, as a basic principle.

Similar changes should be made to Form 7 to bring the LUCs into conformity with the above.

### WOMEN’S LAND RIGHTS

Protecting land tenure rights for women is named as a guiding principle in the NLUP (7(c), 8(a), 8(k)). To clarify that women and men can be joint landholders and apply for joint rights to their land, amendments should incorporate the term “joint landholders” in every reference to LUCs. Similarly, the often-gendered term “head of household” should be stricken from the document to ensure that women are not seen as lesser landholders in a joint land tenure relationship. The NLUP allows for individual or joint landholding by both women and men in 75(a).

Seeking to further clarify that women enjoy the same rights to farmland tenure as men, amendments should incorporate the language “man or woman” when references are made to “farmer.” An additional section (9) should be added to Chapter II (Right for Farming) to emphasize these equal tenure rights, borrowing language directly from NLUP Part IX, Equal Rights of Men and Women.

Lastly, to encourage the participation of women in farmland management bodies, the law should be amended to include a section under Chapter V (Formation of Farm Management Bodies) to emphasize that these bodies should make efforts to encourage the participation of women to represent the community more often as the farmland management bodies evolve. This concept is drawn from NLUP 75(e-f).

### CUSTOMARY USE

Another vulnerable group emphasized in the NLUP is ethnic nationalities (8(a)). The NLUP calls for recognition and protection of customary land tenure rights (6(c)) and of communal property rights (7(d)). With these principles in mind, the law should be amended to expand the “organization” section of LUC holders to include “community,” defining community as an ethnic group utilizing a customary land tenure system. This language should be drawn from Part VIII of the NLUP, the Land Use Rights of the Ethnic Nationalities.

Specific rights to use rotating and shifting cultivation, customary cultivation practices, and fallowing also fall under customary use rights. Section 10(b) of the law should be amended to incorporate these rights into Chapter III. The language used should be borrowed from NLUP section 70. To bring the rest of the document in conformity with this principle, section 12(i) should be stricken from Chapter IV, removing that restriction on the right to fallow land. The NLUP further stipulates that customary lands of ethnic groups should be registered and protected as “customary land” (68). To this end, 17(j) of the law should be modified to give guidance duties to the Central Farmland Management Body for registration of customary land use rights, such as taungya cultivation (which is specifically enumerated under the Farmland Law).

Similarly to the above, to encourage the participation of ethnic nationalities in farmland management bodies, the amended law should include a section under Chapter V (Formation of Farm Management Bodies) to emphasize that these bodies should make efforts to encourage the participation of ethnic nationalities to represent the community more as the farmland management bodies evolve. This concept is drawn from NLUP section 75(e-f).

### LAND CLASSIFICATION

Under the Farmland Law, land is classified under ten different categories enumerated in 3(a-c) of Chapter I (Name, Enforcement, and Definitions). This classification system should be replaced with the simpler classifications found in the NLUP. Chapter II of the NLUP defines agricultural land as “all land used primarily for agriculture production purposes, including growing annual or perennial crops, growing industrial crops, animal husbandry activities, land based aquaculture activities, and any agriculture production focused support facilities, and any agriculture production focused support facilities that are either currently cultivated or fallow (13(a)).”

Forest land and “other” land (including vacant/fallow/virgin land) are the other two classifications. The NLUP further empowers “relevant government departments and organizations” to “review and amend” land types “transparently,” a major improvement from the current system (14). Amending the Farmland Law to reflect this agricultural land definition and ability to convert land for different uses would help improve customary land tenure security and further improve land tenure for farmers practicing fallowing or farming diverse or shifting crops. The current classification system leaves smallholders open to land seizure for failure to use land as stipulated under the current classification or re-classified under different designations that could have consequences for use rights and regulations. Using the broader agricultural land designation will allow the government to continue to monitor agricultural land while embracing farmer freedoms.

### PENALTIES & DECRIMINALIZATION

Though not grounded in the NLUP specifically, the Farmland Law should be amended to reflect decriminalization of the acts formerly punishable under the penal code. Maximizing land tenure security of small farmers is a major goal in the NLUP, and jailing farmers for failure to comply with requirements seems a disproportionate response given other consequences stipulated in the law. The amendments process should remove the chapter on Offences and Penalties as well as a provision under Chapter XII (General Provisions) related to criminal prosecution. To clarify the ability to refer abuses of the Farmland Law to a court system, section 20 should be modified to allow for referral to a related court for application of civil penalties in the event of failure to obey a Farmland Management Body order.

The existence of criminal penalties lends itself to abuses that have occurred in the past in the country, especially when there are significant minimum penalties. The safest approach, given the wide variation of capabilities, concerns, and interests in local areas, is to ground penalties specifically in the breaching activity (i.e., erection of unauthorized structures can result in civil penalties under 19(d) and eviction is possible for failure to use the land for agricultural purposes 19(c)). The civil penalty approach allows the ability to enforce specific areas of concern, such as trespass or resistance in case of eviction. Should further penalties be required for egregious actions, the penal code remains an option while still decriminalizing the Farmland Law.

## **CONCLUSION**

Adoption of freedom of farm and freedom of crop choice principles are essential elements for the successful development of the agriculture sector in Burma. In order to fully unlock the economic growth, livelihoods improvement, increasing climate change resilience and food security potential of the sector, the recommendations relating to freedom of crop choice and agriculture production decision making in relation to land tenure security should be embraced by the Government of Burma through targeted policy, legal, and institutional reforms.

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