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CLIMATE CHANGE
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POLITICAL STABILITY

Tracking Climate Adaptation Aid

CCAPS Climate User Guide

September 2015

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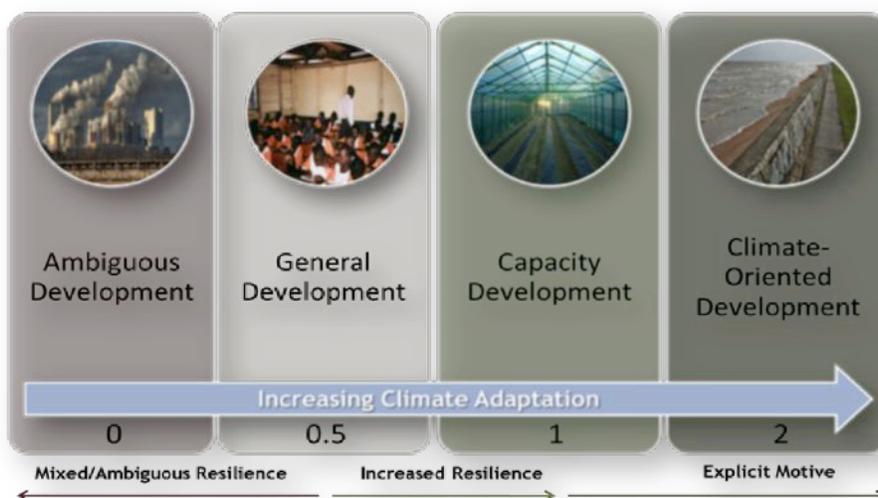
A team of researchers at the University of Texas at Austin developed a new process for climate change adaptation aid coding ('climate coding') under the Robert S. Strauss Center's program on Climate Change and African Political Stability (CCAPS). CCAPS, a multi-year project funded by the U.S. Department of Defense's Minerva Initiative, aims to identify where and how climate change could undermine state stability; define strategies for building African state capacity; and assess the impact of development aid responses, which encompasses this research team's effort to climate code adaptation aid in Africa.

Objectively determining how relevant an aid project is to climate change adaptation is critical to understanding the amount of overall aid that is directed towards adaptation. In 2009, at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) in Copenhagen, advanced industrialized countries pledged \$30 billion in "new and additional" funding for adaptation between 2010 and 2012.¹

Determining what aid is new and additional is not straightforward. Aid includes not only adaptation-focused projects but also adaptation activities integrated into traditional development projects. Climate coding, therefore, offers a way to evaluate and quantify the overall assistance provided for adaptation by considering individual activities within development projects.

The CCAPS coding methodology's rigor comes from *using full project documents as the source of information, coding at the activity level, and implementing a double blind coding process.*² However, it is important to note limitations to the method as well. Because most projects do not explicitly list the amount of money devoted to each activity, it is not possible to calculate the exact dollar amount going towards adaptation aid. It is feasible to make estimates based on how the activities are discussed within the project description.

Figure 1: The CCAPS Adaptation Spectrum



The CCAPS Adaptation Spectrum

The CCAPS climate coding process revolves around a coding ‘spectrum’ that is used in evaluating the activities and the project as a whole. There are four ratings on the spectrum that correspond to the level an activity or project contributes to increasing a population’s ability to adapt to climate change (see Figure 1). The spectrum is explained in more detail below with examples on how the spectrum is put to use.

Ambiguous Development

On the far left of the spectrum is Ambiguous Development (AD). An activity or project is coded as AD when it *has an indeterminate effect on the vulnerability of human or natural systems to the impacts of climate change and climate-related risks*. This activity or project could have a positive development outcome in the short term; however, when considering it in the context of climate adaptation or mitigation, the activity/project effects are either unclear or negative. Still, an assumption of the CCAPS coding process is that aid agencies have good intentions in implementing projects, and therefore the team gives the benefit of any doubt. Ambiguous Development projects might include those supporting agro-industry or emphasizing fertilizer inputs without a long-term, sustainable plan.

General Development

The next point on the spectrum, to the right of Ambiguous Development, is General Development (GD). General Development activities and projects *reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by increasing the general well-being of these systems*. Usually this means that the activity or project will provide income, education, healthcare, or other benefits, but will not specifically increase climate change resilience.

One example of a GD project is the World Bank’s Financial Management, Transparency, and Accountability Project with the stated purpose “to improve the effective and accountable use of public expenditures through capacity building and institutional strengthening for budget implementation and oversight and increased transparency of government institutions.”³ While this project’s goal is to increase general well-being by improving the efficiency of public money, it does not reduce vulnerability to the effects of climate change.

Another example is the World Bank’s Health Sector Support Project in Malawi. In this case, the purpose is “to establish – through a health sector-wide approach – a health delivery system responsive to the needs of the people of Malawi, by improving the effectiveness and efficiency of health services, and providing a minimum package of essential health services....targeted at the poor, women and children.”⁴ The project also says that the focus is “on increasing the efficiency, quality and equity of health services in Malawi.” While this project aims to increase health in Malawi, it does not have a climate specific impact.

Capacity Development

To the right of General Development on the spectrum is Capacity Development (CD). Capacity Development includes activities/projects that *reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by increasing the resilience of these systems to actual or anticipated effects of climate change*. The activity/project is not necessarily planned because of climate change, but it must provide the population with climate resilience. Many CD activities are found within agriculture, water and sanitation, and disaster risk reduction sectors.

One example of CD is the EU Farm Income Diversification Program. The purpose of this program is “to increase food security and income levels of rural households ensuring a sustainable use of soil and water resources by encouraging business development and employment as well as improved marketing of agricultural products in selected communities.”⁵ The goal of the program falls under CD because of the focus on ensuring a sustainable use of soil and water resources. Additionally the following items within the project indicate a CD code: “soil fertility improvement measures;” “implementing suitable soil conservation agro forestry and animal production practices to improve both the farm and village level environment;” “identification of quality and affordable post-harvest facilities, suitable crop processing and easily accessible market outlets;” and “institutional strengthening of the Ministry of Agriculture, Irrigation and Food Security and the Ministry of Commerce and Industry.”

Another CD example is the African Development Bank’s Macadamia Smallholder Development Project. The purpose is “to improve the well being of Malawians through poverty reduction, especially among rural people, by promoting broad based and rapid agricultural development.”⁶ The project aimed at improving the welfare of the smallholder capacity through provision of income earning opportunities and increasing foreign exchange earnings of the smallholder agricultural sector through crop diversification. Research has shown that the macadamia nut grows well in the Malawian environment and requires little maintenance compared to traditional cash crops such as tobacco, sugar, and coffee. Also, macadamia trees are well-suited to intercropping with annual food crops, and therefore, increase the economic return per land unit. Due to these factors, the overall project falls under the CD realm. (See Appendix 2 for an overview of a number of agricultural techniques and their climate impact).

Climate-Oriented Development

The final category within the spectrum, and thus the category with the most explicit motive to increase adaptation, is Climate Oriented (CO). Climate Oriented projects are those that *intend to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by targeting enhanced adaptive capacity of these systems to actual or anticipated effects of climate change or responding to negative climate effects*. For CO assignments, projects and/or activities must clearly state or imply that the motive of the activity or project is a response to anticipated or current climate change.

An example of this type of project is Norway, UNDP, DFID, and Spain’s National Programme for Managing Climate Change in Malawi. The purpose of this project is to make “Malawi better able to plan for and respond to the challenges that climate change poses for sustainable economic development and food security.” One of the main aspects of the project is “to address the problems that some of the communities are currently facing due to the impact of climate change.”⁷

The Coding Process – Step by Step

Step 1: Pre-Climate Coding

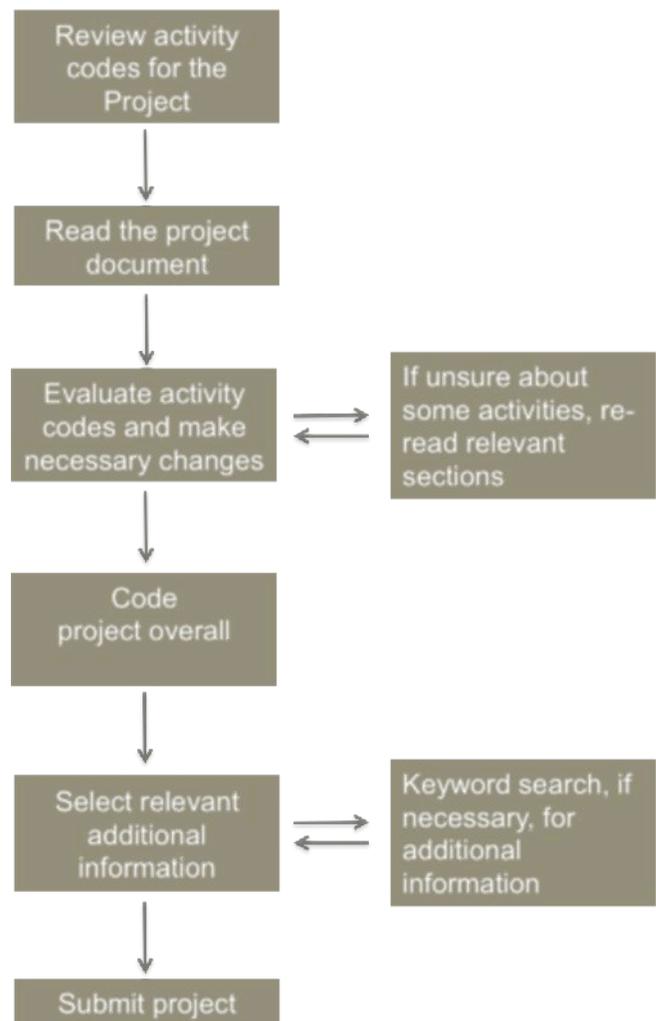
The coding process (see Figure 2) begins with activity coding. Coders read the project documentation and identify every activity listed therein. Coders identify activities of a given project by using a standardized master list of hundreds of possible activities in categories from health to education to agriculture.⁸ In a World Bank document, for instance, this could mean identifying between 10 and 30 activities or more. Importantly, the CCAPS climate coding team *pre-assigned* each activity on this master list with a code on the CCAPS Adaptation Spectrum—both to reduce subjectivity and increase the efficiency and speed of human coding, the next step in the process. Once the activity coding is completed, the codes and their associated documents are analyzed for their adaptation relevance.

Step 2: Climate Coding

Next, coders log on to the online CCAPS climate coding interface. The interface initially displays an introductory screen for each project and provides basic project information (see Appendix 1 for screenshots of the climate coding process). As the first part of climate coding process, coders evaluate each activity and its pre-set code in the context of the overall project goals. Specifically, coders adhere to the following steps:

- (a) Review the project’s activities that were identified and given pre-assigned codes in Step 1.
- (b) Read the project document and find the activities to understand their climate relevance.
- (c) Decide on the most appropriate climate code for each activity. If a pre-set activity code appears correct, then leave it as it is. If the pre-set activity code does not appear accurate, change the code, and then explain the reason for the code change in the comments section. Also in the comments section, note the project document as well as relevant page numbers that provide the information supporting this change.
- (d) Assign an overall project score to the document. Typically, the number of activities that are coded as either AD, GD, CD, or CO correspond with the overall project coding; however, that does not have to be the case. If a

Figure 2: The Climate Coding Process



number of activities seem to be peripheral then focus on the main intention of the project and code based on that information.

Once the basic project scoring is complete (steps a through d), there are a number of additional questions used to gather more information:

(e) The questions around the **Project Phase/Components** gather information for further analysis, such as whether certain project phases or components correlate with certain climate codes.

- Select as many of the checkboxes as apply to the project that is being coded.
- Select 'Pilot Project' if the project is a pilot project.
- Select '(Feasibility) study/planning' if the project is in the feasibility study or planning stage.
- Select 'Additional financing to existing project' if the project is an extension of a previous project (i.e. has a II, III, etc. after the name) or is receiving more funding to either continue previous project work or expand a project's scope.
- Select 'Training/education' if the project includes training and/or education as part of its activities. This can be as a component of one activity or the goal of the project as a whole.
- Select 'Capacity building' if the project includes a capacity building component. This can also be as part of one activity or the goal of the project as a whole.
- Select 'Technology development/deployment' if the project includes a technology development and/or deployment component either as the primary goals or as a part of the project in general.
- Select 'Has research component' if the project includes research either as the primary goal or as a part of the project in general.

(f) The **OECD Rio Marker and Adaptation Marker** questions provide a better understanding of how the CCAPS process and the OECD process relate. Because the CCAPS scale and both OECD scales range from 0 to 2 with similar intervals, it is possible to compare the CCAPS final rating with the OECD ratings. The OECD markers measure the level of a project's mitigation focus (with the OECD Rio Marker) and adaptation focus (with the Adaptation Marker).⁹

- An activity is classified as being related to climate change mitigation if "it contributes to the objective of stabilization of Greenhouse Gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration."¹⁰
- An activity is classified as being related to climate change adaptation if "it intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate related risks by maintaining or increasing adaptive capacity and resilience."
- The coder then decides if the project warrants a '0,' '1,' or '2' on each OECD spectrum. '0' indicates that a project does not have a climate objective, '1' shows there is a significant climate objective, and '2' indicates that the primary purpose of the project is to address a climate objective.

(g) For the **Climate Reference** section, coders select the items in the project that are being coded.

(h) For the **Climate Relevance or Risk Response** section, coders indicate the project's overall inclination toward climate change mitigation or adaptation. If there is no climate component, choose

‘N/A.’ If the project is mitigation focused, choose ‘Mitigation.’ If the project has an adaptation focus, determine if it is *reactionary* or *precautionary* adaptation.

An example of *reactionary* adaptation is a planned drainage system in a city due to previous flooding damage. *Precautionary* adaptation projects might include agricultural programs, such as planting drought-resistant crops, instituted in light of predicted climatic changes.

Step 3: Project Scoring

Under the CCAPS method, after being coded twice—by two different coders—at the activity level as well as the project level, projects are then reviewed by a third coder to arbitrate any conflicting codes between the two initial coders. Projects are then assigned a total numerical CCAPS score. This score mimics the OECD scoring system; on the CCAPS spectrum, AD is a ‘0,’ GD is a ‘0.5,’ CD is a ‘1,’ and CO is a ‘2.’ Activity codes are averaged and weighted at 30 percent, and the overall score is weighted at 70 percent. The overall score has the coders’ evaluation about project focus and thus is used to anchor the final number. The final number indicates a project’s level of climate focus, and the ‘0’ to ‘2’ scale allows CCAPS coded projects to be compared to OECD scores.

FAQs

1. How long does it take to code a project?

It depends on the length and climate content of the project document. Some agencies’ project documents are a page or two so the process is quick. Other project documents, like those of the World Bank or African Development Bank, are extensive and often between 100 and 150 pages. For those projects, coding time is minimal if it is clear that there is no climate relevance. If there is a climate aspect, then it often takes longer to evaluate the activities and the project as a whole. For long documents with climate elements, it can take between 45 minutes and an hour.

2. What is the difference between CD and CO?

The differentiation between CD and CO allows coders to parse out activities that are in response to climate change and those that address another pressing issue, such as poverty, that may inadvertently have positive impacts on climate change concerns. The CCAPS methodology requires that CO activities be explicitly in response to climate change. This means that either the project document includes the term itself or the intention can be reasonably interpreted as combating climate change. One example of this is if a certain activity or group of activities is included in a project document because increasingly volatile weather patterns have led to extreme weather events.

3. How should mitigation activities be coded?

The CCAPS spectrum is focused on evaluating climate change adaptation activities. However, development institutions also give climate change mitigation aid, which often comes in the form of green energy generation facilities or aid for carbon sequestration reforestation. While mitigation aid does not always directly decrease vulnerability, it does have an explicit climate change focus, and is therefore pre-coded as CO.

4. *Should activities with potential environmental effects be coded as AD?*

Climate change and environmental health are related ideas. The spectrum focuses on evaluating development aid's contribution to adaptation, not on the aid's environmental effects. Usually there is no conflict here, but in some cases it is plausible. For example, some types of fertilizer can cause damage to natural habitats and human health if there is runoff that contaminates groundwater. Another example is building a dam that diverts natural water flows and disrupts fish and animal life. While there are environmental implications, they do not affect adaptation to climate change.

5. *How is the local context considered when coding?*

The CCAPS methodology is intended to be broad enough to be used anywhere, but it is also important to consider the country and region where the project is taking place. Activity ratings can be regionally dependent. For example, which crops are most sustainable and appropriate are geographically dependent.

6. *How should inputs be coded?*

Both fertilizer and seeds are pre-coded as general development because they do not increase resilience in the future. Inputs do not increase people's adaptive capacity although they do assist people at the time they are given.

7. *How should capacity-building aid be coded?*

Generally, coders look to see what the capacity building focuses on and then determine if that focus would help people's adaptive capacity. While capacity building is more indirect than other project activities, the intention is still to ultimately benefit people, places, and systems.

8. *There can be a number of project documents for the same project; which is coded?*

Aid agencies have documents of varying levels of detail. The guiding rule is to choose the document with the most detail. For example, if coding a World Bank project, the first choice is to code on a Project Appraisal Document (PAD), then a Project Information Document (PID), and then an Integrated Safeguards Data Sheet (ISDS). If there are multiple versions of the same document type, then coders always code on the most recent version.

9. *Should unspecified activities be coded as AD if it is not clear what they do?*

Generally, coders code activities as GD when in doubt about what the activity involves. However, if there is reason to think that the activity will have an uncertain climate impact, then they code it as AD.

10. *When are water-related activities not CD or CO?*

While water-related activities are often CD or CO, it is not always the case. For example, if the project is working to increase access to water in rural areas for use in agriculture, it is likely CD. However, if the project is connecting additional households to water access in an urban area, unless there are other considerations, it is likely GD.

11. *How are projects coded that involve building roads or facilitating transportation?*

CCAPS climate coding is focused on adaptation and carried out from a human development perspective. CCAPS researchers developed the spectrum to be practical and useable. Roads allow ease of transport, access to markets, and can be used for emergency evacuation, among other things. Because of this, roads are pre-coded as GD but this score can be changed depending on the project context.

Appendix 1: The Coding Process – Step-by-Step Screenshots

Screenshot 1: The CCAPS Climate Coding Interface

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CLIMATE CODING

PROJECT INFORMATION

Project Title	Project ID	Year	Purpose Name
Second National Water Development Project - Additional Financing (ACGF)	P110157	[NO DATA]	Water Supply and Sanitation, combination of purposes
Donor	Recipient	Source	Source Detail
International Development Association		World Bank	http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P110157

Screenshot 2: The Overall Project Climate Score

OVERALL PROJECT CLIMATE SCORE

Capacity Development ▾

Comments

Given that the focus of the document was on distributing low cost water technologies in order to assist farmers in increasing their crop production, the overall project fits in capacity development.

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Screenshot 3: The Climate Reference Indicators

CLIMATE REFERENCE INDICATORS	
Marker	Value
Project Phase/Component	<input type="checkbox"/> Pilot Project <input type="checkbox"/> (Feasibility) study/planning <input type="checkbox"/> Additional financing to existing project <input type="checkbox"/> Training/education <input type="checkbox"/> Capacity Building <input type="checkbox"/> Technology development/deployment <input type="checkbox"/> Has research component
OECD Rio (Mitigation) Marker	-- please select one ▾
OECD Adaptation Marker	-- please select one ▾
Climate Reference	<input type="checkbox"/> Has climate change listed as theme/portfolio/sector/objective <input type="checkbox"/> Has environmental (vulnerability) assessment <input type="checkbox"/> Has climate (vulnerability) assessment <input type="checkbox"/> NAPA/NAMA referenced <input type="checkbox"/> "Climate (change)" appears in text [in reference to climate change] <input type="checkbox"/> "Mitigation" appears in text [in reference to climate change] <input type="checkbox"/> "Adaptation" appears in text [in reference to climate change] <input type="checkbox"/> Other "adaptive/climate strategy" appears in text [in reference to climate change]
Climate Relevance or Risk Response	<input type="checkbox"/> N/A <input type="checkbox"/> Mitigation <input type="checkbox"/> Reactionary Adaption

Appendix 2: Agricultural Practices and Their Impact¹¹

Management practice	Productivity impacts	Climate adaptation benefits	Greenhouse gas mitigation potential
Cropland management			
Improved crop varieties or types (early-maturing, drought resistant, etc.)	Increased crop yield and reduced yield variability	Increased resilience against climate change, particularly increases in climate variability (prolonged periods of drought, seasonal shifts in rainfall, etc.)	Improved varieties can increase soil carbon storage
Changing planting dates	Reduced likelihood of crop failure	Maintained production under changing rainfall patterns, such as changes in the timing of rains or erratic rainfall patterns	
Improved crop/fallow rotation/rotation with legumes	Increased soil fertility and yields over the medium to long term due to nitrogen fixing in soils; short-term losses due to reduced cropping intensity	Improved soil fertility and water holding capacity increases resilience to climate change	High mitigation potential, particularly crop rotation with legumes
Use of cover crops	Increased yields due to erosion control and reduced nutrient leaching; potential tradeoff due to less grazing area in mixed crop– livestock systems	Improved soil fertility and water holding capacity increases resilience to climate change	High mitigation potential through increased soil carbon sequestration
Appropriate use of fertilizer and manure	Higher yields due to appropriate use of fertilizer/manure	Improved productivity increases resilience to climate change; potential greater yield variability with frequent droughts	High mitigation potential, particularly where fertilizer has been underutilized, such as in SSA
Incorporation of crop residues	Higher yields due to improved soil fertility and water retention in soils; tradeoff with use as animal feed	Improved soil fertility and water-holding capacity increases resilience to climate change	High mitigation potential through increased soil carbon sequestration
Reduced or zero tillage	Increased yields over the long term due to greater water-holding capacity of soils; limited impacts in the short term; tradeoff in terms of weed management and potential waterlogging	Improved soil fertility and water-holding capacity increases resilience to climate change	High mitigation potential through reduced soil carbon losses
Agroforestry	Greater yields on adjacent cropland due to improved rainwater management and reduced erosion	Increased resilience to climate change due to improved soil conditions and water management; benefits in terms of livelihood diversification	High mitigation potential through increased soil carbon sequestration
Soil and water management			
Irrigation and water harvesting	Higher yields, greater intensity of land use	Reduced production variability and greater climate resilience when systems are well designed and maintained	Low to high depending on whether irrigation is energy intensive or not

Bunds	Higher yields due to increased soil moisture; potentially lower yields during periods of high rainfall	Reduced yield variability in dry areas; potential increase in production loss due to heavy rains if bunds are constructed to retain moisture	Positive mitigation benefits minus soil carbon losses due to construction of bunds
Terraces	Higher yields due to increased soil moisture and reduced erosion; potential to displace some cropland	Reduced yield variability under climate change due to better soil quality and rainwater management	Positive mitigation benefits minus soil carbon losses due to construction of terraces
Mulching or trash lines	Increased yields due to greater water retention in soils	Reduced yield variability under drier conditions due to greater moisture retention	Positive mitigation benefits
Grass strips	Increased yields due to reduced runoff and soil erosion	Reduced variability due to reduced soil and water erosion	Positive mitigation benefits
Ridge and furrow	Increased yields due to greater soil moisture	Reduced yield variability in dry areas; possible increase in production loss due to heavy rains	Positive mitigation benefits minus initial losses due to construction of ridges and furrows
Diversion ditches	Increased yields due to drainage of agricultural lands in areas where flooding is problematic	Reduced yield variability under heavy rainfall conditions due to improved water management	Positive mitigation benefits through improved productivity and hence increased soil carbon
Management of livestock or grazing land			
Diversify, change, or supplement livestock feeds	Higher livestock yields due to improved diets	Increased climate resilience due to diversified sources of feed	High mitigation potential because improved feeding practices can reduce methane emissions
Destocking	Potential increases per unit of livestock; total production may decline in the short term	Lower variability over the long term, particularly when forage availability is a key factor in livestock output	High mitigation potential because reduced livestock numbers lead to reduced methane emissions
Rotational grazing	Higher yields due to greater forage availability and quality; potential short-term tradeoff in terms of numbers of livestock supported	Increased forage availability over the long term, providing greater climate resilience	Positive mitigation potential due to increased carbon accrual on optimally grazed lands
Improved breeds and species	Increased productivity per animal for the resources available	Increased resilience of improved species or breeds to withstand increasing climate extremes	Varies, depending on the breeds or species being traded
Restoring degraded lands			
Revegetation	Improved yields over the medium to long run; improved yields on adjacent cropland due to reduced soil and water erosion	Reduced variability due to reduced soil and water erosion	High mitigation potential
Applying nutrient amendments	Improved yields over the medium to long run		High mitigation potential

¹ UNFCCC, *Report of the Conference of the Parties on Its Fifteenth Session, Held in Copenhagen from 7 to 19 December 2009* (Bonn: UNFCCC, 2010), 7.

² Catherine Weaver, Justin Baker, and Christian Peratsakis, *Tracking Climate Change Adaptation Aid: Methodology*, CCAPS Research Brief No. 5 (Austin: Robert S. Strauss Center for International Security and Law, 2012).

³ The World Bank, “Financial Management, Transparency, and Accountability Project (FIMTAP), www.worldbank.org/projects/P078408/financial-management-transparency-accountability-project-fimtap?lang=en.

⁴ The World Bank, “Malawi – Health Sector Support Project,” <http://documents.worldbank.org/curated/en/2004/11/5408181/malawi-health-sector-support-project>.

⁵ European Commission, “Farm Income Diversification Program – Phase I.” 2007.

⁶ African Development Bank Group, “Malawi-Macadamia Smallholder Development Project – Project Completion Report (PCR), <http://www.afdb.org/en/documents/document/malawi-macadamia-smallholder-development-project-project-completion-report-pcr-20180/>.

⁷ Ministry of Development Planning and Cooperation, Ministry of Natural Resources, Energy and Environment, Government of Malawi, “National Programme for Managing Climate Change in Malawi.”

⁸ For details on AidData’s activity coding, see AidData, “Sector and Activity Coding Scheme,” www.aiddata.org/content/index/user-guide/coding-scheme.

⁹ For details on the OECD’s Rio and Adaptation Markers, see Organization for Economic Cooperation and Development, *Handbook on the OECD-DAC Climate Markers*, September 2011, www.oecd.org/dac/stats/48785310.pdf.

¹⁰ *Ibid.*, 3.

¹¹ International Food Policy Research Institute, *Agricultural Management for Climate Change, Adaptation, Greenhouse Gas Mitigation, and Agricultural Productivity* (Washington: IFPRI, 2011).