LIVELIHOODS DIVERSIFICATION ANALYSIS (LDA)

LITERATURE REVIEW

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USAID/SENEGAL

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USAID Senegal Monitoring and Evaluation Project

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ACRONYMS

CVE	Countering Violent Extremism
FASO	Families Achieving Sustainable Outcomes
IFC	International Finance Corporation
IIF	Innovation Investment Fund
LDA	Livelihood Diversification Analysis
LINKS	Promoting Linkages for Livelihood Security and Economic Development
LRA	Lord's Resistance Army
NGO	Non-Governmental Organization
PRIME	Pastoralist Area Resilience Improvement through Market Expansion
RISE	Resilience in the Sahel Enhanced
SSA	Sub-Saharan Africa
USAID	United States Agency for International Development
VEO	Violent Extremist Organization
ViM	Victoire sur la Malnutrition (Victory Against Malnutrition)

BACKGROUND

LDA Project Description and Background Context

The Livelihoods Diversification Analysis (LDA) has two key functions: (1) to inform ongoing and future iterations of resilience programming in Niger, Burkina Faso, and potentially other Sahelian countries, and (2) to contribute more broadly to strategic thinking on holistic programming that addresses the underlying factors of vulnerability to violent extremism in the Sahel. A key focus of the analysis will be on how to promote less climate-dependent and non-climate-dependent livelihood diversification strategies within the Resilience in the Sahel Enhanced (RISE) zone of influence and with the specific demographic groups that RISE is targeting, including youth populations, as well as in regions of the Sahel with similar development challenges. With respect to the second key function, the LDA effort is expected to focus primarily on those countries and regions that either are currently experiencing violence/instability as a result of the actions of violent extremist organizations (VEOs), or are at risk of escalation of such activity due to structural vulnerabilities, or "push factors." The LDA effort is aimed to help shape interventions to promote less climate-dependent and non-climate-dependent livelihood diversification in two geographies: traditional resilience zones and zones vulnerable to VEO recruitment/violence. The RISE zone of influence for Niger includes the regions of Tillaberi, Maradi, and Zinder; in Burkina Faso, it includes the provinces of Seno, Yagha, Komondjari, Gnagna, Namentenga, Sanmatenga, Bam, and Loroum.

Regarding the first function of the LDA, USAID's RISE initiative is a five-year, $330 million effort to address the underlying causes of vulnerability in Niger and Burkina Faso that lead to repeated instances of humanitarian need when these countries are faced with climatic shocks and other, longer-term stressors such as poverty, poor governance, population pressures, and conflict over natural resources. Following two years of RISE implementation it has become evident that the promotion of alternative livelihoods, including those less susceptible to drought and other climate-related disasters, has been identified as a current gap in RISE programming. The LDA will inform future programmatic developments in this sector.

The second function is related to a broader problem set that USAID is examining related to the challenges that VEOs pose to the region. USAID assumes that there are a number of underlying social, political, and economic ("push") factors that contribute to the vulnerabilities that allow VEOs to emerge or expand operations through recruitment. Given this assumption, USAID seeks to address the issue of a lack of sustainable, meaningful, and diversified livelihood opportunities, which is understood to be a contributing factor to the Sahel's vulnerability to manifestations of violent extremism, particularly in relation to youth unemployment.

Definitions

"Less climate-dependent" or "indirectly agricultural" livelihoods are defined as those which are indirectly engaged in or associated with activities related to the production, processing, marketing, distribution, utilization, and trade of food, feed, and fiber, including livestock. "Non-climate-dependent" or "non-agricultural" refers to livelihoods that are not directly vulnerable to, and therefore are less negatively affected by, either long-term/slow onset shifts in climatic norms for a particular region or sudden and unpredictable climatic shocks (droughts, floods, etc.). Examples of non-climate-dependent livelihoods may include hairdressing, mechanics, carpentry/construction, tailoring, cell phone repair, information technology work, and handicrafts. Non-climate-dependent livelihoods may be indirectly impacted by climatic events through effects such as drops in purchasing power and demand for services, crisisinduced population displacements, disrupted transportation or communication networks, disruption of electricity distribution, reductions in availability of water needed for the livelihood, etc. Thus, throughout this document, "livelihood diversification" will refer to those individual, household, and community level strategies and objectives that are pursued alongside, or in lieu of, traditional agricultural activities to diversify income streams and reduce risk. This study is tasked with presenting findings related to both non- and less climate-dependent livelihood strategies.

Literature Review Purposes, Audience, and Intended Uses

The purpose of the LDA is to better inform the development of future programmatic interventions and strategic efforts focused on the promotion of livelihood diversification in the Sahel by the Sahel Regional Office at USAID/Senegal. In particular, the LDA will shed light on the most effective development interventions, investment priorities, and strategic approaches necessary to facilitate progress on diversification into non-climate-dependent (i.e., non-agricultural) and less climate-dependent (i.e., indirectly agricultural) livelihoods in the Sahel, taking into account relevant socio-cultural nuances.

This LDA literature review is intended to serve as a companion document to the LDA final report, to provide additional context and discussion of the peer-reviewed evidence and knowledge base brought to bear on the issues addressed in the LDA final report.

APPROACH

This literature review identified and synthesized relevant peer-reviewed academic literature and development sector programming documentation from the region and elsewhere with respect to: current approaches and challenges to promoting less climate-dependent and non-climate-dependent livelihoods in the Sahel and comparative regions (in terms of climatic and traditional livelihood contexts, resilience, and development); lessons learned and persisting knowledge gaps; and particular vulnerabilities and considerations across sub-groups of interest, particularly as they intersect with the countering violent extremism (CVE) context. Particular sub-groups of interest include women, youth, urban and peri-urban populations, and rural communities. In addition, the literature review drew on relevant current USAID program documents and evaluation study findings to help identify programmatic shortcomings and gaps.

The literature review aimed to summarize and present current knowledge from peer-reviewed published literature on the following two questions:

1. What relationship does livelihood diversification have to the overall resilience of a household or community?

2. To what extent does a broad-based, diversified, and remunerative local economy appear to serve as a preventative factor against violent extremism?

The literature review drew on peer-reviewed primary and secondary studies published in academic journals, summary meta-analyses, systematic reviews, other published reports, development program assessments and evaluations, and other relevant literature as identified through systematic keyword searches and forward and backward snowballing of key sources conducted across the following databases: Scopus, the largest database of published academic journal articles; USAID's Development Experience Clearinghouse; the Evidence Portal of the International Initiative for Impact Evaluation; World Bank research and publications databases; and the research for development outputs database of the United Kingdom's Department for International Development.

LITERATURE ON LIVELIHOOD DIVERSIFICATION THEORIES, APPROACHES, AND KNOWLEDGE GAPS

Livelihood Diversification and Rural Non-Farm Economies

A wide range of academic research and literature has been published on livelihood diversification benefits, challenges, lessons, and knowledge gaps, at macro and micro levels, addressing both less and non-climate-dependent contexts. It is well-recognized that households in sub-Saharan Africa (SSA) seek to diversify their income and livelihood strategies both to manage or reduce their risks and to expand or take advantage of synergies across different income generation activities (Barrett, Reardon et al. 2001). While livelihood strategies of the poorest often still depend primarily on agricultural activities, several studies show non-farm income activities to correlate with greater overall household wealth. Thus, engendering more non-farm opportunities (i.e., non-climate-dependent) has been a focus for poverty alleviation and many broad development efforts, although some work also suggests caution in assuming causality in this relationship (Barrett, Reardon et al. 2001). On the whole, arguments for growing the non-farm economy in SSA have also highlighted the role it may play in providing employment for the continent's burgeoning population of poor, typically rural, and working age men and women; providing an alternative to urban migration; and contributing to overall economic growth and income equality (Lanjouw and Lanjouw 2001). There is general agreement in the academic literature that more livelihood diversification and non-farm employment is typically good for individuals and overall economic growth in SSA.

It is therefore not surprising that many development strategies and programs seek to design development interventions to better promote livelihood diversification. These typically seek to provide farmer populations with access to new or expanded non-farm opportunities, such as involvement in micro- or small business enterprises, and/or promote engagement in agricultural transformation, encouraging farmer populations to become actors in higher levels of crop value chains. Development strategies for livelihood diversification therefore tend to focus on eliciting increased access to and use of modern inputs and technologies, improving markets and agribusiness opportunities, and developing skills and support for individuals and groups to engage in non-agricultural self-employment or wage employment.

But while the potential opportunities afforded by diversification efforts are well-recognized, the challenges involved in engendering access and promoting effective uptake of less or non-climate-dependent livelihood opportunities for more disadvantaged segments of populations have long been recognized as a key problem for development programming, as such populations typically lack the education, skills, financial capital, and/or social networks that are needed for such opportunities to be successful (Davis, Winters et al. 2010). A related challenge is how to effectively engender agricultural transformation, for which the literature also identifies more knowledge gaps than clear answers. Lastly, given the interlinkages between agricultural and non-farm activities in many rural economies in SSA, including Burkina Faso and Niger, an additional and unresolved key programming challenge centers on how to more effectively grow common elements of the agricultural and non-agricultural sectors together (Davis, Winters et al. 2010).

Thus while the issue of livelihood diversification in SSA has been a core focus of development efforts and academic research for many decades, and much of the poverty alleviation discourse seeks to better understand how to effectively facilitate or promote livelihood diversification towards non-farm/non-agricultural activities (Alobo Loison 2015), as well as towards more formalized wage employment, there remain several key and substantive knowledge gaps. Among these, it is first important to note that there is not yet universal consensus that greater livelihoods diversification in rural areas of SSA will necessarily lead to broad-based improvements in living standards (Alobo Loison 2015). And while there are many calls for development efforts to expand non-farm livelihoods[1] and economies in SSA, the academic literature actually still remains unsure of whether and the extent to which growing non-farm activities may lead to increased poverty alleviation (Dorosh and Thurlow 2016).

One noted contributor to this uncertainty is that much of the existing research on this has taken a broad brush approach to what constitutes "non-agricultural," lumping many activities together rather than engaging in sector-specific or more finely disaggregated analyses of different non-agricultural activities (Dorosh and Thurlow 2016). In one recent analysis that does this for Malawi, Mozambique, Tanzania, Uganda, and Zambia, Dorosh and Thurlow (2016) find that manufacturing (under which the authors include agro-processing), trade, and transport services can be on par with or higher than agriculture in terms of their poverty reduction effectiveness, while construction and government services tend to be lower. Their work highlights that non-agricultural sectors of economies are indeed important for potential poverty reduction. While their analysis points to the importance of manufacturing in the study countries, they are also careful to note that this sector's potential is importantly related to/dependent on strong linkages between farmer-producers and agro-processing, so agricultural sectors should not be neglected either.

Overall, their analysis reinforces the existing literature which tends to find that in SSA, agriculture-led growth tends to be more strongly associated with poverty reduction than growth in non-agricultural sectors. However, there is substantial variation across countries, and such differences tend to relate to differences in the structural characteristics of countries. For example, in the case of agro-processing as a component of manufacturing, they find that in countries where the required workers and inputs can be supplied by poorer and less educated households, such as for agro-processing activities in Zambia, Malawi, and Tanzania, this sector is similarly effective as agriculture at reducing poverty. But for countries where the agro-processing activities focus on higher-value inputs that are more often provided by wealthier households, such as meat and dairy industries in Uganda, or where the required inputs and worker skills rely on a higher capital and education, such as in Uganda and Mozambique, the poverty-reducing potential of the agro-processing sector is much lower (Dorosh and Thurlow 2016).

These findings provide useful lessons to apply in Burkina Faso and Niger, where a wide range of crops appear to have varying levels of potential and interest for greater agro-processing and value chain development, with localized differences in producers and their resource endowments across regions or provinces. When considering which industries to support, in which locations, and how, it will be important to pay attention to the fit between needed worker skills and inputs and industry requirements.

In addition to marginal agricultural contexts and populations that tend to have low levels of literacy and schooling, Burkina Faso and Niger also have a number of constraints in terms of broader business and enabling environments, including poor government services, regulatory environments, infrastructure, transport, and market accessibility (both physical and relational). World Bank Business Enterprise Survey data from the formal economy for both countries highlights access to finance as the main obstacle cited by small firms in the non-agricultural formal private sector in Niger, and is the primary obstacle cited across small, medium, and large firms in Burkina Faso (World Bank 2010; World Bank 2010a).

[1] Barrett, Reardon, and Webb (2001) define farm/agricultural income as "all income derived from the production or gathering of unprocessed crops or livestock or forest or fish products." Non-farm/non-agricultural income is defined as "all other sources of income, including processing, transport or trading of unprocessed agricultural, forest and fish products." Non-farm sectors have been broadly categorized as inclusive of services, commerce, transport, construction, mining, and manufacturing, and also as exclusive of income derived from agriculture, livestock, fishing and hunting activities (Lanjouw and Lanjouw 2001).

At the micro level, much existing research points to a wide range of context and structural factors, and individual endowments, that shape the kinds of places likely to be more amenable to diversification efforts, and who within a community may be better placed to successfully benefit from livelihood programming. Thus, locational and individual targeting are important elements for successful programming. The key structural factors that the literature notes as essential for facilitating effective promotion of non-farm livelihood activities and non-farm economic growth include: good infrastructure and transport; communication and information infrastructure; market access, noting that this also encompasses physical infrastructure and (at times) communication and information access, electricity availability, and institutional processes to facilitate markets; and an overarching policy environment that facilitates small-scale, less formal, and more rural enterprises and small businesses, rather than providing disincentives (Barrett, Reardon et al. 2001, Lanjouw and Lanjouw 2001, Brixiova 2010, Davis, Winters et al. 2010, Alobo Loison 2015).

There is also ample evidence that several characteristics of individuals, in addition to the constellation of place-based context factors, ease the ability for some households and individuals to diversify their livelihoods out of subsistence farming and livestock more so than others. Key among these are literacy, numeracy, education level, skills, financial capital, and social or professional networks (Barrett, Reardon et al. 2001, Davis, Winters et al. 2010, Alobo Loison 2015). For instance, much existing work suggests that being able to take advantage of higher earnings and non-climate-dependent livelihood opportunities is conditional on already being better off to begin with. In Gambia, a recent study of small non-farm enterprises showed that wealthier households were more likely to undertake non-farm entrepreneurial activities and invest more in such activities (Gajigo 2013). In Ghana, a study of more than 8,500 households found the level of education to be a significant determinant of the number non-farm livelihood activities and their share of household income. Households with greater access to credit, electricity, and markets also had more non-farm income sources and a higher share of income from non-farm activities (Senadza 2012).

Overall, a range of empirical studies from SSA points to household, locational/geographic, and broader structural factors as playing key roles in determining the likelihood, sustainability, and level of productivity/success of micro- and small business enterprises and other less and non-climate-dependent livelihood activities. Household factors may include, for example, age, gender, level of education, and existing farm and non-farm assets. Locational/geographic factors include road conditions, market access, and availability of water and electricity. Broader structural factors may include credit access, regulatory environments, and general business conditions. At the same time, a wealth of studies also demonstrates that complex interactions among place, policies, markets, institutions, and social and cultural factors contribute to divergent or unanticipated development outcomes. For this reason, it is necessary to be cautious about blanket assumptions that uniform programming prescriptions will work similarly in different areas, as subtle differences in constellations of factors and their interactions could lead to unintended differences in outcomes.

Structural Factors as Key Barriers to Effective Livelihood Diversification

Several studies highlight a number of key considerations for efforts to innovate on livelihood diversification away from primarily agricultural sources. These studies commonly highlight structural limitations as key underlying contributors to high unemployment in SSA, particularly among youth (Reardon, Taylor et al. 2000, Lanjouw and Lanjouw 2001, Oya 2013, Fox and Thomas 2016). Thus while the potential opportunities afforded by diversification efforts are well recognized, the challenges of how to engender access and effective uptake of less or non-climate-dependent livelihood opportunities for more disadvantaged segments of populations have long been recognized as a key problem for development programming, as such populations typically lack the education, skills, financial capital, and/or social networks that are needed for such opportunities to be successful (Davis, Winters et al. 2010). This is one of the reasons why more effective entrepreneurship training for self-employed individuals or micro- and small business enterprises receives strong attention. Academic research emphasizes a need for both higher productivity entrepreneurship (as opposed to low productivity entrepreneurial activities that are common in SSA), and more diversity of the kinds of entrepreneurial activities that are done (Brixiová, Ncube et al. 2015), particularly where wage and salaried employment opportunities are low (Cho and Honorati 2014).

An equally salient consideration is that the heterogeneity of context and individual factors and interactions in rural areas of SSA calls for great caution in applying uniform program interventions. This consideration shifts the emphasis to more localized designs that draw on community inputs and site-specific fit: "The great heterogeneity of the non-farm sector in rural areas implies that there is little scope for general, broad, policy prescriptions. … A wide variety of interventions may be required to promote the non-farm sector, each tailored to specific local conditions" (Lanjouw and Lanjouw 2001).

The literature widely recognizes several constraining factors to productive entrepreneurship in developing countries, including the overarching regulatory and business environment in a country, lack of capital, poor access to credit, and lack of entrepreneurial skills (Mano, Iddrisu et al. 2012, Cho and Honorati 2014). Studies also show that much of the existing entrepreneurial activity in SSA tends to be in sectors with little value-added potential, and are "driven by necessity rather than opportunity" (Brixiova 2010, Brixiová, Ncube et al. 2015).

However, more productive and opportunity-driven entrepreneurship can be supported and expanded through effective skills training for nascent entrepreneurs. Such training can help bridge two of the three key primary constraints commonly faced by young entrepreneurs: insufficient business skills and professional networks (Brixiová, Ncube et al. 2015). When coupled with facilitated access to credit, such programs address all three of the major constraints to productive entrepreneurship at the micro level: business skills, effective networks, and sufficient capital to start and expand enterprises. The following section summarizes key guidance and examples from rigorous impact studies on using entrepreneurship training, cash transfer models, and expanded information access as strategies to achieve more effective livelihoods diversification.

Overall guidance highlights that development programming should:

- Recognize that entrepreneurs in developing country contexts consist of two broad categories: individuals who engage in entrepreneurial activities that provide subsistence-level self-employment, and those who engage in more productive or transformational entrepreneurship through the micro- or small enterprises they develop. Training needs and the type of training that will be most effective differ across these two broad categories of entrepreneurs (Cho, Robalino et al. 2016).

- Recognize that it is not necessary to aim to shift all potential entrepreneurs into the transformative category. Programs that can provide better access to knowledge, skills, equipment, or markets can still improve the earnings and economic well-being of subsistence entrepreneurs (even if they remain in relatively lower productivity activities), and this may be acceptable for broader poverty alleviation goals (Cho, Robalino et al. 2016).

- Offer packages of training coupled with support to address other business constraints, such as skills training together with seed funds or credit access (Brixiová, Ncube et al. 2015).

- Target “high-potential” youth, the meaning of which can vary by context but draws on personal characteristics such as self-determination and motivation. It is also important not to leave higher-risk or more vulnerable groups behind; however, effective strategies for such groups are likely to differ, and there is currently less research focused on this (Brixiová, Ncube et al. 2015).
- Keep in mind that efforts to create new employment and expand jobs rely on different kinds of beneficiaries than those that aim simply to reduce poverty or empower vulnerable groups to undertake successful self-employment. Coupled training and credit access interventions may improve the likelihood of business survival, though not necessarily expand new employment opportunities. This may be sufficient depending on program objectives (Grimm and Paffhausen 2015).

Examples of the types of existing development program activities designed to more effectively address constraints that individuals face to achieving stronger entrepreneurship include those that focus only on skills training, as well as those that combine training packages together with access to finance (typically in the form of either matched or un-matched cash grants, scholarships, or micro-finance), advising and mentoring, and linking participants into professional networks. Many such programs provide demand-driven services, and aim to target individuals who are already engaged in entrepreneurial activities.

Cho, Robalino, and Watson (2016) highlight four key sets of considerations for the design of strong entrepreneurship development programs, each of which has bearing on the likelihood of program effectiveness: (1) determining beneficiary targeting, eligibility criteria, and profiling potential applicants or participants, particularly given that many studies suggest that relatively low uptake may be common; (2) determining the set and sectors of business/enterprise activities that will be allowable under the program, noting that this can function via either a demand-driven or project-determined approach; (3) choosing the training and additional elements that will comprise the program interventions; and (4) selecting the form and institutional partnerships by which program delivery will occur.

Vocational Training and Entrepreneurship

Business and entrepreneurship training aims to improve business income, profitability, and growth through improved knowledge, financial literacy, and use of good business skills (for example, use of record keeping and formal accounting). It is also anticipated to lead to higher employment, either through expanded employment opportunities for additional workers in successful small or medium-sized business enterprises, or simply through self-employment for successful entrepreneurs. Such training programs are often offered at no expense to participants (McKenzie and Woodruff 2014). Different interventions target a range of beneficiaries, including youth, women, clients of microcredit institutions, or those with some level of existing business skills or an existing small business. There is also a strong focus on potential entrepreneurs in target groups, such as the unemployed, school drop-outs, or recent school graduates (Cho and Honorati 2014). In general, much of the current rigorous evaluation literature finds differential impacts by different beneficiary groups, suggesting that it is important to target programs well. However, there is also currently no strong understanding of whether certain kinds of training programs universally benefit certain types of target beneficiaries in a consistent way. Similarly, there is no strong evidence that the same kind of program will produce the same type or level of effect when applied in different country contexts (Cho and Honorati 2014). This uncertainty stems in part from the relatively small existing evidence base. Moreover, much of the current knowledge base is drawn from studies with relatively small sample sizes, without sufficient statistical power to detect small effects if such effects are present.

In the development literature, entrepreneurship training has also been viewed as a potential vehicle to help address youth unemployment, while strong entrepreneurial activity in poor countries is widely viewed as important for stimulating stronger economic development, not only through providing direct employment but also for its role in spurring innovations, new technology adoption, or expanded dissemination.

Some programs couple entrepreneurship training packages with competitive funds to provide start-up capital to successful participants, thus aiming to address not only the skills deficit but also capital constraints that are another commonly cited barrier for new entrepreneurs. Going a step further, other programs also aim to link participants more strongly into professional networks. Training programs often emphasize a mix of business, entrepreneurship, and financial literacy skills, and programs may draw on partnerships across NGO, private sector, education, and government institutions (or some subset of these) to design and provide the training. Typical content of such training efforts includes topics on accounting, financial planning, marketing, pricing and costing, and separating household and business finances. More comprehensive efforts can also address topics related to customer service, business growth strategies, and employee management, and issues related to savings, debt, and using banks (McKenzie and Woodruff 2014).

There is generally a positive outlook on the potential for such programs to foster stronger employment opportunities, growth, and livelihoods diversification in countries, but there are also several knowledge gaps, including with respect to effective targeting. The academic literature consistently highlights that the current evidence base for entrepreneurship and vocational training program effectiveness draws on relatively few rigorous impact studies,[2] conducted over too short time periods, and often with too small sample sizes to enable rigorous analysis and power to detect nuanced differences in impacts across different types of participants. In turn, this limits the overall knowledge base on how to design and implement future development programs that are appropriately tailored for given contexts, and are more likely to achieve their intended effectiveness.

There are also several reasons that contribute to the current lack of strong evidence on business training impacts, including measurement difficulties for impacts like profits or revenues. This is made even more difficult by the fact that many small business enterprises or entrepreneurs do not maintain written records. Moreover, many evaluations of program impacts are done after only a relatively short time period has passed (for example, one year), which may be too short for impacts to be realized (McKenzie and Woodruff 2014).

In terms of business survivorship, there is some evidence that business skills training programs that focus on skills for starting a new business can increase income and the likelihood of business survival. However, the effects are nuanced. For example, in one study women with higher social status had positive effects, but those with lower social status did not (Field, Jayachandran et al. 2010). In other studies, it appears that individuals who successfully start new businesses are essentially trading this for wage employment that they could do elsewhere. In such cases, although the training program is successful for entrepreneurs, it does not necessarily increase net employment in the program area (McKenzie and Woodruff 2014).

However, recent meta-analyses or systematic reviews do provide a useful evidence base for the impact of training programs (or training programs coupled with finance interventions) on intended development programming outcomes. Cho and Honorati (2014) draw on 37 rigorous impact evaluations of entrepreneurship programs, and find wide variation in the effectiveness of such programs, which also vary depending on country and type of participants. They find evidence for the impact of training on business skills knowledge and adoption of practices, but not on income. In their efforts to identify which

[2] Rigorous impact evaluation studies—which rely on data from program and comparison groups that serve as a counterfactual to determine what impacts would have been for program participants, had they not participated in the program—are the highest standard for credible understanding of development program impacts.

types of training programs tend to work better for certain types of target beneficiaries, they find that such programs can have stronger impacts for younger participants, while training programs that are also combined with finance activities have stronger impacts than those that focus only on business training or financial training alone. They also find that financial activities focused on cash or in-kind grants lead to stronger impacts than microcredit activities, but caution that the even thinner evidence base here leaves much room for additional work. Lastly, their analysis also suggests that women participants appear to benefit most from finance activities that provide access to credit, rather than skills training.

Several studies have also found positive impacts of entrepreneurship training programs on the use or adoption of improved business skills, such as record keeping and formal accounting, although few studies have shown corresponding increases in revenue or profits. However, existing evaluations of business training effects frequently lack sufficient statistical power to detect small impacts if they are present, while differences in outcomes measured or the nature of training components included in different interventions also limits the extent to which strong syntheses of trends can be made (McKenzie and Woodruff 2014, Grimm and Paffhausen 2015).

A recent systematic review, which also looked at effects of financial access, business development services, and efforts to improve the broader business environment, in addition to entrepreneurship training, found similar overarching patterns across the urban and rural non-farm micro, small, and medium enterprises in its sample. Drawing on a sample of 53 studies that used rigorous experimental (randomized controlled trial) or quasi-experimental methods to detect impacts and attribute effects to development program interventions, the authors found that entrepreneurship training led to small improvements in management skills and self-employment. Relative to entrepreneurship training, financial access activities on their own had smaller impacts (Grimm and Paffhausen 2015). Finance interventions included microcredit schemes as well as conditional and unconditional cash grants ranging from $100 to $2,000 per participant. However, and similar to many of the complaints raised by LDA study participants, the authors note that for many credit interventions, loan sizes tended to be too small, and required repayment over too short a time period (Grimm and Paffhausen 2015).

Appropriate targeting is also important, with some studies pointing to stronger impacts for training participants who already had higher skills at the start of their programs, while other studies suggest that longer, more intensive, and more tailored training programs that are specific to the knowledge gaps of participants are more effective. In general, the body of evidence of rigorous impact studies of business enterprise and entrepreneurship training programs also highlights several important gaps in knowledge. These include a strong understanding of how training should be tailored to different types of beneficiaries (for example, women vs. men, poorer vs. wealthier participants, and subsistence vs. transformative entrepreneurs), what kinds of participants tend to benefit most from such training, and what are the characteristics of small enterprises that tend to be able to use such training more effectively (McKenzie and Woodruff 2014, Cho, Robalino et al. 2016). Since most of the current work is conducted within a relatively short time after the program (12-24 months post-intervention), there is also little understanding of the longer-term effects of such programs – for example whether any positive short-term effects are maintained, grow stronger, or fade out over longer time periods.

Training interventions tend to target either micro-enterprises (≤ 5 employees), or demographic groups that are more likely to have high existing unemployment, such as youth. As with earlier meta-studies, Grimm and Paffhausen (2015) also find evidence that participants gain improved business skills as a result of such training programs, but there is little evidence for an effect on sales, revenues, or profits.

Lastly, it should be noted for this and the other systematic reviews and meta-analyses discussed here, the bulk of the studies are drawn not from SSA but from Latin America, where a greater number of randomized controlled trials and experimental studies on these issues have been conducted. In general, there are few rigorous studies of the impacts of entrepreneurship training, financial access, and broader business environmental interventions from SSA, despite the clear relevance of employment issues in SSA and the fact that such efforts comprise a major focus of development programming on the continent (Grimm and Paffhausen 2015).

Unsurprisingly, current syntheses of these types of training programs have called for larger studies, with sample sizes that are sufficiently powered to detect small impacts; greater consistency in which and how different outcomes are measured across studies; a stronger focus on understanding heterogeneous outcomes across participant and enterprise characteristics; longer timelines for conducting research; and a stronger focus on determining which particular components of training programs appear to contribute most to positive effects (McKenzie and Woodruff 2014, Grimm and Paffhausen 2015). Furthermore, there is currently little work to understand the cost-effectiveness of different types of training or coupled training and finance interventions (Grimm and Paffhausen 2015), which is crucial to help those who design development programs to better understand how they might use scarce development resources most efficiently.

In terms of empirical evidence from individual studies, a recent rigorous impact evaluation study from Ghana found that training focused on entry-level management skills led to improved business practices (Mano, Iddrisu et al. 2012). In Swaziland, Brixiova, Ncube, and Bicaba (2015) found better performance, measured by sales, in young entrepreneurs who had received business training, although men did better than women. Their study also found that young entrepreneurs with stronger professional networks performed better, underscoring the important role that networks play in successful business enterprises, in addition to skills.

In terms of overall effects on employment, there also appear to be fewer studies that have looked at this, and those that have generally found small effects on overall employment as a result of a small business's having received business training. Relatedly, such work has found that only a small proportion of micro-enterprises that receive business training go on to hire additional employees (that is, generate new employment) (McKenzie and Woodruff 2014). On the other hand, there is some evidence that business training can increase the amount of loans obtained by entrepreneur participants. Some studies have demonstrated significant increases in the likelihood of women's seeking loans (Field, Jayachandran et al. 2010). Others have found an increase in the amount of loans taken, although in some cases this was higher for men only, and not for women participants (Giné, Mansuri et al. 2011).

In perhaps one of the most relevant impact evaluation studies for this LDA, Blattman, Fiala, and Martinez (2014) studied the impacts of an innovative Youth Opportunities Program implemented in areas of northern Uganda affected by insecurity, armed banditry, and violent extremist groups. The program provided one-off cash grants of generally $7,500 – $10,000 to selected groups, which averaged out to roughly $382 received per group member. Applicants went through a structured application and screening process conducted by the Government of Uganda, which included preparing and submitting a written proposal to describe how grant funds would be used for non-agricultural skills training and costs to start a small business enterprise. Since most potential applicants were illiterate with few years of formal education, the program provided facilitators to help with proposal preparation. Applicants had leeway to choose where and through which institution they would like to be trained, including apprenticeship programs and formal training offered by institutions. The program established a set of technical criteria for selection, and a screening process was implemented that involved village and district government. The program provided a one-off payment of the amount requested to successful applicants, and conducted no additional monitoring of funds after the payment was made (Blattman, Fiala et al. 2014).

The rigorous evaluation of program impacts was conducted via an experimental design, in which equally qualified groups of applicants were randomized into program (treatment) or comparison (unselected) groups. Four years on, half of program participants were engaged in a skilled trade (most commonly tailoring, hairstyling, carpentry, or welding), and the program had increased business assets by 57 percent and earnings by 38 percent over those of the control group (Blattman, Fiala et al. 2014). There was also evidence that the program had led participants to move towards stronger business formalization, including a greater likelihood of keeping formal accounting records, registering their businesses, paying business taxes, and hiring labor (that is, employment expansion). Women and men participants had similar impacts; however, women saw larger increases, primarily because they start small businesses with fewer resources than their male counterparts, and, absent such a program, women appeared unable to successfully start and maintain profitable small business enterprises, while treatment group women were able to do so. Blattman, Fiala, and Martinez noted substantial social barriers to women's starting and maintaining businesses in their study context, which may serve to effectively shut women out of successful entrepreneurship. Barriers can include social stigma or disapproval of women's starting businesses, lower approval rates for credit/loans, and difficulties women may face protecting business earnings from husbands or male family members (who may siphon resources from the nascent business and make it harder to invest or grow its profitability). The study also found that women required a longer time period to realize positive impacts, but the magnitude of their earning increase over control group women was substantially greater than for men (women in the treatment group had a 73 percent increase in earning over women in the control group, relative to treatment group men earning 29 percent more than control group men) (Blattman, Fiala et al. 2014)

The Blattman, Fiala, and Martinez study is something of an outlier, and one of the strongest current examples of a successful unconditional cash transfer program in SSA. It provides compelling evidence of the possibility for well-designed and targeted development programming to elicit positive changes and opportunities for poor unemployed citizens to move from low-earning agricultural work into skilled artisanal and non-farm small business enterprises or entrepreneurial activities. The study also provides strong evidence for credit constraints as a substantial barrier to successful diversification into non-agricultural livelihood activities, and illustrates how, in this program context, unconditional cash transfers to groups of would-be entrepreneurs can be an effective way to overcome this barrier (Blattman, Fiala et al. 2014).

Financial Literacy and Improved Banking and Credit Access

Another key element for stronger economic growth towards less and non-climate-dependent livelihoods is the ability for households and individuals to have access to functional financial systems that provide them with the ability to save, access risk-management products, and obtain financing for business activities (Beck, Demirgüç-Kunt et al. 2009). In the absence of such systems, entrepreneurial-minded individuals must rely on their personal networks for financial support to pursue opportunities. Such sources are often only available to already better-off populations, thus poor access to sufficient credit also tends, in poor countries, to reinforce existing economic equalities across populations (Beck, Demirgüç-Kunt et al. 2009).

Poor credit access is therefore recognized as a key barrier to wider economic growth; however, several recent studies suggest that, while important, it may not always be the most important barrier to livelihoods diversification and household economic growth (Karlan and Morduch 2009). Instead, studies suggest that individuals generally must first have some base level of financial literacy in order to be able to take advantage of expanded credit access and credit opportunities (Sayinzoga, Bulte et al. 2016). Moreover, existing evidence on credit expansion activities through increased microfinance has found a range of mixed results, and has led some authors to highlight that the ability for program recipients to benefit from microfinance interventions often hinges on individuals' existing human capital, including their financial literacy (Sayinzoga, Bulte et al. 2016).

Financial literacy is defined as "consumers' awareness, skills, and knowledge enabling them to make informed, effective decisions about financial resources" (Sayinzoga, Bulte et al. 2016). Although there are relatively few rigorous experimental studies which measure the impact of financial literacy programs on development objectives, there is some evidence from existing studies to suggest that a focus on improving financial literacy can be an important way (and in some cases perhaps a necessary precondition) to improve the ability of individuals to effectively make use of improved access to credit. Such studies highlight several important points. First, they provide evidence that it is possible to improve the financial literacy of the rural poor through targeted training programs; second, that such improved financial literacy can lead to positive changes in household behavior around saving more, and being able to borrow effectively; and third, that such changes in household saving and borrowing can translate into improvements in or starting new income-generating activities by households.

In one example from Rwanda, Sayinzoga, Bulte, and Lensink (2016) found that financial literacy training had a significant positive impact on household saving and borrowing, as well as on new business start-up rates. However, the training was not found to have a significant impact on household income. Importantly, the study also found that increased financial knowledge among financial literacy trainees did not appear to get passed on (or spill over) to fellow farmers in the same villages, suggesting that an assumption that training some villagers in financial literacy could effectively help spread financial literacy across a village may be misguided (Sayinzoga, Bulte et al. 2016).

On the other hand, it should be cautioned that not all financial literacy studies have found a positive effect. Some studies have also found low interest in financial literacy training among intended beneficiaries, but this could relate to where and how the training was offered. For example, the Rwandan example above, in which there was high interest among beneficiaries, provided a week-long training course and paid transport costs for participants, while some other programs are much shorter and may be perceived to offer less added value to potential beneficiaries (Sayinzoga, Bulte et al. 2016).

Systematic reviews focused on understanding the impact of increased use of microcredit services have also found mixed evidence of success. A 2012 systematic review of 17 rigorous studies of microcredit and micro-savings program impacts, which examined interventions aimed to improve the uptake and use of microcredit (typically small cash grants, as opposed to larger credit sources) and micro-savings (i.e., improved availability of deposit services for small amounts of cash), found little evidence that such programs have a positive impact on income diversification for program beneficiaries (Stewart, van Rooyen et al. 2012). In addition, the review found that while greater use of microcredit can lead to an increase in economic opportunities for some, often this is more likely to be successful for people with already higher levels of education or vocational training (Stewart, van Rooyen et al. 2012). Overall, such studies point to fairly mixed evidence to date, and many remaining knowledge gaps on the effectiveness of microcredit interventions for individual or household economic growth. Results also highlight the importance of appropriate targeting for microcredit programming, noting that there is evidence that for some of the ultra-poor, obtaining microcredit services can actually make them poorer, due to the riskiness associated with meeting loan repayments according to the required schedule, and the often difficult loan interest conditions (Stewart, van Rooyen et al. 2012).

Agro-processing Support and Expansion

A 2012 meta-evaluation of agribusiness support programs conducted by the International Finance Corporation (IFC) provides complementary information to the above, with a focus on summarizing the evidence for the impact of access to finance and farmer/business training on agribusiness indicators

(Nankhuni and Paniagua 2013). The focus on these two particular types of agribusiness support stems from causal logic that the key barriers to farmers' ability to benefit from agribusiness expansion activities stem from: (1) a lack of sufficient agricultural inputs and financial capital, together with (2) insufficient knowledge, to make a productive switch to marketable crops, achieve the level of agricultural productivity and quality required for markets, and engage effectively in market processes for a given value chain. The 2012 meta-evaluation summarizes the results of 22 previous meta-analyses, together drawing on evidence from 135 reports and 66 evaluations that met selection criteria for inclusion in the analyses.

The analyses found that access to finance interventions tended to produce positive impacts on short and medium-term outcomes, such as adoption of new agricultural technologies (like improved seeds or fertilizers), higher production, and increased agricultural income. However, results were also fairly varied across different value chains and types of beneficiaries. For farmer business training results, the meta-evaluation similarly found some positive impacts on increased technology adoption, yields, and income, but this was generally only for certain types of beneficiaries, and also only for some value chains. This suggests that there is scope for such interventions to be better targeted to appropriate beneficiaries, and for better selection of viable value chains for a given context. In addition, for access to finance interventions, the analyses tended to find some evidence of positive impacts on overall household livelihoods, but in terms of poverty reduction, there was little evidence for this longer-term effect from farmer business training interventions alone.

As with the evidence highlighted in previous sections of this literature review, the IFC study highlighted that the most successful interventions provided training programs together with in-kind (in the form of inputs or equipment) or cash grants. In terms of specific guidance for more and less successful approaches, the review also cautions against one-size-fits-all training models, and emphasizes the need for approaches that are tailored to the needs of specific farmer groups. The authors also noted that more successful projects tend to focus on resolving limitations across an entire value chain, including a focus on good farming practices and management skills, post-harvest techniques, marketing support, and facilitating organized groups of farmers to have access to sufficient information on prices and linkages to suppliers, and to ensure that they understand and are trained in required quality standards for product marketability. It is highlighted that improvements and dissemination of relevant information and communications technology can be an especially useful way to improve farmer access and effective use of market information for wide entry and engagement in agribusiness activities (IFC 2012).

Supporting Evidence from Development Programming Literature and Evaluations

USAID: Pastoralist Area Resilience Improvement through Market Expansion (PRIME)

USAID's Pastoralist Area Resilience Improvement through Market Expansion (PRIME) program is a five-year initiative aiming to impact 250,000 households in three regions of Ethiopia, launched in 2012. Its overarching objective is to "increase household incomes and enhance resilience to climate change through market linkages," toward the goal of reducing poverty and hunger. The program described its methodology as a combination of "push" and "pull," with the emphasis on production and productivity to be the *push* force and the linkage to markets to be the *pull* force. PRIME investments were all in agricultural value chains, particularly livestock. The project has five complementary "intermediate results" or thematic areas—productivity of livestock, adaptation, alternative livelihoods, innovation, and nutrition.

To strengthen alternative livelihoods for households transitioning out of pastoralism, the PRIME project focused on achieving (1) increased employability through life skills, financial literacy, and entrepreneurship training and mentoring; (2) increased income opportunities for households transitioning out of pastoralism, including through increased access to and availability of appropriate financial services, technologies, and private sector market information; and (3) expanding market access to increase employment opportunities, through support to businesses expansion or start-ups, and a focus on public and private sector opportunities (USAID 2015).

The two main mechanisms used to improve market linkages are the Innovation Investment Fund (IIF) and the small grants fund. The IIF is aimed at supporting livestock value chains by encouraging new private sector investment through grants of up to 50 percent of the investment cost. This was designed to support activities across the entire project through targeted investments in the form of technical assistance, matching grants, and service contracts with private sector, government and non-government stakeholders. In sum, the grants were intended to reduce the risk for investors in high-risk areas and leverage new investment.

A PRIME mid-term evaluation found that the strategy has the potential to have a strong positive impact on livestock and livestock product value chains (USAID 2015). The number of applicants for grants was initially small, but the entire grant budget of $5 million was soon fully committed. Illustrative ventures included enterprises focused on improving access to and availability of quality livestock inputs, including feed and fodder; improving animal health services; improving meat and live animal trade; strengthening the dairy value chain; essential skills transfer for youth and entrepreneurs; strengthening the poultry value chain; and efficient and renewable energy technology. Small and medium enterprises were not the only beneficiaries: financial institutions, private equity and business advisory firms, research institutes, and other not-for-profit entities could all apply for IIF support under the same conditions as the small businesses, for projects that had similar market development objectives.

The small grants are obtainable for up to $25,000 and are provided for up to 30 percent of the investment cost, with the balance provided by the investor (similar to IIF grants). The grants are allocated on a competitive basis following vetting according to selection criteria (also similar to IIF), usually targeting existing businesses where investors already have a track record. The range of grant recipients has included dairy processing and distribution businesses, private veterinary pharmacies, women's traders' associations, agricultural cooperatives, agricultural input suppliers, solar energy distributors, and livestock holding grounds. The original project results framework provided for engaging households on commercial livestock production and small-scale dairy and fattening models, but the evaluation did not find progress yet in this area.

Evaluators described the project as most successful in its efforts to improve market linkages, but noted that it had a harder time increasing livestock production activities. Market linkages were considered a success because of the small investment funds. The evaluators found the value chain investments worked best when technical advisory accompanied the value chain investment subsidies—and when the investments did not crowd out other non-subsidized market players. Technical advisory to accompany the investments was seen as very useful, especially in cases where livestock investors and business operators were relatively uninformed about the best practices of production.

It was also emphasized that value chain interventions need to be systematically mapped to cover all points of the value chain, in order to proportionately emphasize each link in the chain, without which the others cannot work. In this sense, value chain mapping may be a useful exercise. For example, in agriculture, addressing the supply chain for high-yielding seeds is worth little if the market for fertilizer does not work for the same customers. And investments in expanding small-scale dairy production are suboptimal without 24-hour electricity and a cold-storage chain among wholesale buyers.

Trainings worked best in the cases where they were directly connected to opportunities. While the project also sponsored a job-seeking agency, it was unclear what type of relationships or incentives the project had for actual *job placement* with employers for graduating trainees and other job seekers. Without that kind of linkage, livelihood trainings for job and entrepreneurship skills may not help many people find jobs or start their own business.

As is often the case for potential beneficiaries within the RISE zone of influence, the PRIME evaluation noted that prospective entrepreneurs did not have startup capital. The PRIME project had a microfinance platform and connections with some banks. Facilitating this interaction between the loan providers and would-be entrepreneurs may also help to connect training and technical advisory to financial services for new business opportunities. For example, by virtue of contact with banks, the project was apparently able to encourage the rollout of a regional mobile money platform from the national bank (USAID 2015).

Lessons for Targeting Vulnerable Subpopulations

The trainings seemed to benefit mostly the people who already lived in urban areas, as the cost of attending training was not covered for poor and remote households.

PRIME has made inroads on issues of gender inequity by promoting inclusion of women on local councils (how this was done is not clear); targeting women-owned cooperatives for grants, subsidies, and training (especially in the processing of agricultural products and petty trading); and establishing village savings and loan associations (how these are organized and what their activity base looks like are not clear).

USAID: Families Achieving Sustainable Outcomes (FASO) and Victory Against Malnutrition (ViM)

USAID's Office of Food for Peace partners with the World Food Program to provide emergency food assistance in Burkina Faso. USAID's most recent Food for Peace projects in Burkina Faso are Families Achieving Sustainable Outcomes (FASO) and Victory Against Malnutrition (ViM) (USAID 2015a). FASO spent roughly $40 million over five years, from 2010 to 2015, in the districts of Boulsa-North, Manni, and Gayéri (north-central and eastern Burkina Faso). ViM was valued at roughly $34 million over five years, from 2011 to 2016, in Sanmatenga Province.

Both projects aimed to reduce food insecurity affecting vulnerable populations by improving farmers' incomes and household health and nutrition, especially among pregnant and lactating women and children under 5 years old. Examples of resilience programming included support for irrigated vegetable gardens, improved and adapted seeds, improvement of soil fertility, post-harvest products, and emphasis on high-value crops. Beyond these successes were counted a community savings and credit program and the expansion of *warrantage* practices. It is not clear that the programs were doing much beyond assistance in agricultural domains or to achieve a transformative change, as the nods to governance were vague, and those to infrastructure were small-scale. While the evaluation found excellent examples of project assistance to *resilience*, there was little indication that interventions would serve the goal of livelihood diversification that is closer to the core of the RISE initiative.

Lessons on Successfully Diversified Livelihoods and Overcoming Barriers to Diversification

Particularly in the FASO program, climate-smart technologies improved the harvest and income of farmers. These interventions were also packaged with some access to credit, which could offer an avenue to diversified livelihoods, even if that was not an explicit consideration of the program.

Meanwhile, the ViM program put a slightly greater emphasis on community health and nutrition programming. The changes that ViM brought about by a host of interventions range from promotion of breastfeeding to improved seeds, poultry and small ruminant production, and empowering women through training programs.

Geographic access to agricultural inputs and financial access to small equipment limited the ability of the program to maximize impact and the potential for adoption of the proven technologies. The organizational capacity of the producers' groups hindered their ability to effectively address these challenges. Market gardening groups experience frequent breakdowns of water pumps due inadequate preventive maintenance and the unavailability of locally qualified technicians. Land security is another dimension that needs careful consideration in the negotiations around land improvement initiatives and market gardens.

Evidently, the greatest challenge of the FASO program was the difficulty farmers encountered in accessing agricultural inputs—including both equipment and financial services. Even producers' groups did not help the farmer members to gain access to fundamental technologies for basic functions, such as irrigation—and there were no technicians or mechanics available for maintenance when existing facilities broke down.

Finally, the evaluation asserted, "Without investment in good governance, human capital and infrastructure, the livelihood situation reverts to a steady state system." Governance came out as a cross-cutting issue for both programs. Communal development plans were not appropriated by local populations, and municipal councils were inadequately involved in the monitoring and supervision of village development committees, which remained dominated by men, while low levels of literacy prevented full participation and effective action, particularly by women. Water users' associations faced similar challenges, including mobilizing user contributions, keeping accurate records, coordinating with municipal authorities, and finding any qualified technicians available for repairs.

Lessons for Targeting Vulnerable Subpopulations

Rural households in the program areas faced formidable challenges in meeting basic needs and participating in a civil society structure that supports their livelihoods. Among the main challenges were food insecurity, insufficient food production, malnutrition, insufficient infrastructure to encourage exchange and trade, and limited income-earning opportunities that would enable households to invest in their livelihoods and the future of their children.

A cross-cutting issue is the lack of literacy among rural residents, particularly women, which greatly limits their potential opportunities. These food aid programs even set up some adult literacy training workshops, although it is unclear that any results were monitored (or could be quickly expected). Low levels of literacy limited the full participation of beneficiaries, particularly women, in the program.

Given that note of gender imbalance, however, the evaluators advised that greater attention should be paid to women's needs and activities that support change in the cultural structure of gendered rights and privileges. In fact, activities such as household gardening are viewed as a substantial opportunity not only for households to increase their income, but for women to increase their agency and decision-making power. Increases in income, for women, are accompanied by increases in intra-household power—not to mention perhaps domestic spending that more closely tracks the nutritional needs of young children.

The authors suggested that women may not only be a particularly receptive audience for training (with a higher commitment to attendance and uptake), but they may also stand to gain the most from training in new vocational skills. The evaluation also suggested including adolescent women and girls in a wider range of programming. This greater, dedicated inclusiveness of younger women could provide a nudge toward shifting the balance of gender equity.

Women's savings groups are a key component of most, if not all, of ViM and FASO activities, and they require reliable access to credit to be sustainable. The projects worked with microfinance institutions to set up women's savings groups. But it was not clear whether the banks were lending at favorable rates with friendly policies, or whether the women's groups (or any individuals) were consistently benefiting from the loans that were made available. The scholarly literature has not yet settled the question of which types of entrepreneurial activities (and entrepreneurs) benefit most from microfinance, so future programming that scales up credit access could include further research into such questions about the best conditions for microcredit success.

USAID: Promoting Linkages for Livelihood Security and Economic Development (LINKS)

The LINKS project was a three-year, $8 million initiative in Sierra Leone, focused on improving farmers' capacity to carry out market-oriented agriculture and manage businesses. For up to 12,500 beneficiaries, the project aimed to increase socially marginalized youth's access to livelihood opportunities, including agriculture; improve access to agricultural inputs; establish two microfinance institutions; and institutionalize marketing information (USAID 2007).

Specific interventions included establishing microfinance institutions; offering small startup grants and business training; agricultural marketing and plantation rehabilitation for staple and export crops; capacity building for farmer innovation and agro-processing; farmer field schools; market information system development; post-conflict peacebuilding; community infrastructure; village savings and loan programs; literacy training; skills training and financial support for job opportunities, specifically targeted to youth and women; and media activities to highlight successes and opportunities.

Lessons on Successfully Diversified Livelihoods and Overcoming Barriers to Diversification

Evaluators were positive about the success of the program in overcoming some of the barriers to livelihoods diversification. In particular, they highlighted microfinance, business training, youth participation, and the market information system. After business training—and literacy training as well in some cases—many beneficiaries were able to take advantage of startup grants and village-level loans, with apparent success. Preparation in business and vocational skills made them ready to take advantage of the opportunity that came with the next part of the program, which was technical training followed by and coupled with loans. Many of the grantees and loan recipients went into petty trading. Despite the program's theory of change and hypothesis of an impact in agriculture, the evaluation found that non-agricultural production appeared to be among its greatest benefits (USAID 2007).

Although the training was deemed to be effective, beneficiaries indicated that it did not go far enough. They indicated that their micro-enterprises did not advance beyond their "current ceiling," so that even if they could find employment, these did not become "sources of employment in their own right." However, a successful aspect of the training was that the choice of topics was highly participatory; the training topics were selected by trainee groups themselves. Among the interventions implemented, the evaluators also highlighted the success of a market information system, which broadcasted prices on the radio and became an important source of information for farmers to know what prices were available at different market points throughout the country.

Microfinance was also seen as one of the greatest successes of the LINKS project. Loans were very popular with those who took them because of their low interest rates (2.5 percent) and easy access, and the repayment rate was apparently very high (cited as 99.9 percent). There were easily navigable group lending processes, gradual increases in loan size, and simple collateral requirements. The beneficiaries reported that loans allowed them to expand their businesses (USAID 2007).

Lessons for Targeting Vulnerable Subpopulations

The village savings and loan groups were often comprised entirely of women, and they benefited from skills training. However, the sustainability of this model was called into question, particularly for (peri) urban youth. In the LINKS program, young men went into business in cassava processing to produce *gari*, but they soon learned that the cash flow cycle of this business did not meet their everyday cash needs. In other words, even if this was a profitable business model, it was not profitable fast enough. The men needed cash today, and the agro-processing only promised revenue later on. For this reason, if not others as well, the young men were evidently "disenfranchised" from LINKS startup benefits. The evaluation also found that young men refrained from taking microloans to the same extent as elders and particularly women (USAID 2007).

Integration was a notable aspect of the program, which did a lot with only $8 million—that is, integration between different aspects of the program targeted to the same farmers' groups: field schools, savings and loans, trainings in skills and business management, and even literacy. The interventions were overlaid onto existing community structures and initiatives, which maintained and built upon community ownership of the activities (USAID 2007).

USAID: East Africa Resilience Learning Project

Little et al. (2016), in a report commissioned by USAID on East Africa resilience programming, highlighted the main types of livelihoods than have evolved among pastoralists from three case studies in Uganda, Ethiopia, and Kenya. Main questions included how the livelihoods are changing and why, what factors determine whether alternative livelihoods are good or bad options, and what the economic and political implications of this diversification are. The authors also examined the social and environmental costs of diversification, including women's experiences. Finally, they made recommendations on policy improvements for rural livelihood diversification programming.

The authors used a framework that examines short- versus long-term reward, and compares risks to benefits, to draw conclusions about which livelihoods offer the best opportunities with the fewest private *and* social costs.

Lessons on Successfully Diversified Livelihoods and Overcoming Barriers to Diversification

Their foremost examples of livelihoods with short-term private gain but long-term social (environmental) cost were in the cultivation of grazing land and the production of charcoal. In fact, the marginalization of pastoralist communities (at least in East Africa) has accelerated as a result of recent changes in land use—and this hits women and minorities particularly hard because of their disenfranchisement facing the laws and land rights in general.

The authors argue that there is no single technology for enhancing resilience in drylands. Rather, there are multiple, incremental options, including livelihood diversification, that, when adapted to local contexts and circumstances, can increase probabilities for improved livelihoods and resilience. Factors that impact diversification and migration include employment and business prospects, education, security, and health.

At least in East Africa, the fact that towns are growing in size also means that they are growing in importance, and the nature of a town's economy dictates the employment opportunities available there. Some towns, now growing in what were until recently strictly rangelands, offer great diversity of businesses and job opportunities. Increased urbanization and associated business developments in the larger towns attract wealthier herders who seek investments in business and occasionally in real estate. Depending upon trade and migration patterns, towns can be connected to local or national labor markets and to national or international markets for food and consumer goods (if not yet services).

Program opportunities for building resilience in the drylands include land tenure and land use policies; education and skills training; support for women-owned enterprises and employment programs for youth; value-added activities around livestock production and trade (e.g., fodder production, meat processing, and local fattening enterprises for trade); support to local communities for natural product extraction, processing, and marketing (e.g., wild plant products); nutritional extension and support for settled/ex-pastoralist communities; (peri-)urban infrastructure planning, especially sanitation and water; governance and empowerment; and research and support on all of the above.

With regard to land use changes, government policy can have a defining impact on the livelihood options and benefits available to residents—especially in industries related to extracting or processing natural resources. Wild plant products may also help local people more than is currently the case, if local groups can be organized for the collection, processing, storage, and marketing of the goods. Such products—and local cooperative groups to do the processing and improve techniques and technologies—may be a good opportunity to target benefits particularly for women.

Livestock production and processing offer a unique opportunity to expand and innovate upon current operations, where new techniques and supply chain improvements can deliver greater benefits and multiplier effects in the local economy. Urbanization, income increases, and population growth all entail an increased demand for meat, milk, and other animal products, which local producers and traders could potentially meet.

Low-hanging fruit for basic infrastructure investments in ex-pastoralist communities would include sanitation and hygiene, more consistent electrification, animal health services, and various supports to small-scale enterprises.

Lessons for Targeting Vulnerable Subpopulations

Education may be the single most important factor in allowing for livelihood diversification—especially into the modern sector of formal employment, but also in terms of finding work in nearby locations, or in finding a job with a high enough wage to send money to family. One major challenge for education of pastoralist communities is the nature of education delivery, which restricts mobility if it is based in a single location. It is almost as if education and pastoralism are tradeoffs, if not mutually exclusive, unless other means of education can be devised. Furthermore, current curricula are often ill suited or unrelated to pastoralist concerns and life experiences. The same would likely be true for families that migrate seasonally for other kinds of work (as in *exode*).

Women diversify into petty trading, casual waged labor, food/drink sales, and, recently, labor migration to towns where they face risks of physical abuse and discrimination.

Youth and women are particularly vulnerable subpopulations, especially in the transition from pastoralism to other forms of livelihoods. Youth are often jobless even if interested in following (agro-) pastoralist modes of living (which they may not be). Education and training programs are emphasized as an (or *the*) exit from poverty for these un(der)employed youth. But the projects should not end at training, and should instead offer connections to employment, or more likely to credit for low-capital startup operations and entrepreneurial activity. Savings and credit groups can be a network of mutual support and reinforcement.

Women and female-headed households comprise a majority of ex-pastoralists in towns and settlements. They may particularly thrive in programs aimed at self-help groups for entrepreneurial activity, including those that help with skills in trades as diverse as dairy, textiles, and services of various types (e.g., barber or *tontine*). Women's savings and credit groups and cooperatives can share risk among community members, train in business and leadership skills, and gain some bargaining power in negotiations with wholesalers, large-scale traders, or even some public or private officials. These organizations seem to be a distinctive path toward increased female empowerment in cultures where that may not be the traditional norm.

Lastly, it is important to highlight that the authors of this report did not find that livelihood diversification happened by abandonment of traditional (agro-)pastoralist livelihoods, but rather through *supplementing* these established means with additional income-generating activities.

LINKING LIVELIHOODS DIVERSIFICATION OBJECTIVES TO CVE CONCERNS

The addition of CVE concerns into livelihood diversification objectives brings no shortage of additional challenges and uncertainties. The second primary focus of the LDA literature review effort was to examine and synthesize key messages from current development sector program evaluation and peer-reviewed academic literature with respect to answering to what extent a broad-based, diversified, and remunerative local economy appears to serve as a preventative factor against violent extremism.[3]

Key programming concerns in this context are to better understand how to design strategies, set policy, allocate resources, and implement effective initiatives to counter the threat by VEOs. There is a growing body of literature that examines the emergence and expansion of VEOs and the attraction and recruitment of participants and supporters. But while scholars are beginning to help policy makers and practitioners gain some understanding of the conditions under which violent extremism likely thrives, there remain enormous gaps in understanding and an absence of a robust empirical evidence base to draw firm conclusions on many of the potential factors of vulnerability. Those gaps are particularly acute in Africa broadly and the Sahel specifically. Through these gaps, there is a risk that premature conclusions and visceral responses bear disproportionate weight in the design of approaches to CVE.

Broad-Based, Diversified, and Remunerative Local Economies as a Preventative Factor Against Violent Extremism

Few would likely question the notion that understanding the determinants of violent extremism is prudent in designing strategies, setting policy, allocating resources, and implementing effective initiatives to counter the threat by VEOs and their adherents. As noted above, however, the current literature, though expanding, does not yet provide a comprehensive understanding. Moreover, while the core ideologies of Salafi jihadi organizations have consistent elements, those who join these VEOs, which are most prominent in the Sahel, have varied and multi-layered motivations. Designing and targeting development responses to enhance resilience to these VEOs, and hinder community support or participant recruitment to them, should be similarly varied.

In an effort to understand the extent of knowledge and gaps, and thereby redress the risks of premature conclusions and visceral responses, this literature review examines the prominent peer-reviewed studies and practitioner-developed field research in the area of violent extremism and terrorism. These valuable debates and studies help place field research in context and point to areas of needed exploration. The breadth of areas that could be reviewed precludes the possibility of examining all potential push and pull factors associated with attraction to violent extremism and to VEOs, despite the worthiness of such an endeavor. This review seeks more narrowly to understand whether the current body of literature answers *to what extent a broad-based, diversified, and remunerative local economy appears to serve as a preventative factor against violent extremism.*

Challenges with Definition

Fundamental to assessing the linkage between local economic conditions and prevention of violent extremism, one needs to consider terminology. While the term "violent extremism" appears in the literature, nearly all the sources for this review that used the term were studies and articles authored by

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[3] Violent extremism refers to "advocating, engaging in, preparing, or otherwise supporting ideologically motivated or justified violence to further social, economic and political objectives" (USAID, 2009).

government entities (i.e., U.S., European, Australian) or their implementing partners. "Terrorism" remains a more frequently used term for academic and non-affiliated researchers, despite a myriad of concerns about its imprecision, including the widely accepted recognition that the term is a "specific method of struggle" or a "tool of persuasion" rather than synonymous with insurgency or political violence (Wilkinson and Stewart 1987; Ozdamar 2008). Some researchers have noted that there are more than 100 diplomatic and scholarly definitions of terrorism (Krueger and Maleckova 2002). With an absence of a uniform definition of "terrorism," and comparatively limited usage of the term "violent extremism," comparisons of studies are challenged by potentially varying parameters.

The path followed by some of using the U.S. Department of State definition as a guide is convenient (Krueger and Maleckova 2003; Berrebi 2007):

> *The term 'terrorism' means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience. The term 'international terrorism' means terrorism involving citizens or the territory of more than one country. (Title 22, USC, Section 2656f(d))*

Certainly, the terminological refinement through the use of "violent extremism" does not counter the U.S. Department of State's definition of "terrorism," yet it introduces the notion that ideology plays a role in motivating behavior or justifying violent action. And in the context of the Sahel, whether through al Qaeda in the Islamic Maghreb, Boko Haram, al Mourabitoun, or Movement for Oneness and Jihad in West Africa, that specific ideology manifests as Salafi jihadism. Though not the exclusive underpinning for all violent non-state actors in the region, Salafi jihadism is the predominant ideology among extremist organizations, particularly in Niger and Burkina Faso. Adherents of Salafi jihadism, including al Qaeda, the Islamic State, and all of the networked and affiliated groups in the region, see Islam as all-encompassing in daily life, with Sharia as the essential legal and governance framework, ideally within a pan-Islamic governance structure. The form of Islam practiced under the first generations of Muslim leadership is considered the only acceptable form. There is only one God with no minor deities, saints, or secular competitors. Adaptations of Islam beyond the Koran and Sunnah are viewed as undesirable innovations in the religion that need to be purged. Those who practice these innovations, including Sufis and Shi'a, are considered apostates and thus non-Muslims. Similarly, Salafi jihadist frequently label unjust and corrupt leaders as apostates. The struggle against non-Muslims, apostates, and foreign invaders is a cornerstone of defending Islam for these VEOs. Sacrifice of one's life in pursuit of this goal is believed to pave a path to heaven. Depending on one's perspective, this may be considered rational or irrational behavior.

> *Violent extremism refers to advocating, engaging in, preparing, or otherwise supporting ideologically motivated or justified violence to further social, economic and political objectives. (USAID, 2009)*

This literature review, therefore, uses both "violent extremism" and "terrorism" to reflect the terminology present in the literature, recognizing the nuances between the two and the limitations of each.

Fluidity of Violence: Domestic and International

Terrorism and violent extremism emerge not simply as isolated activities insulated from broader issues of national and international stability. One of the obstacles to analysis of violent extremism is the extent to which it overlaps with other violent phenomena such as civil war and insurgency (USAID 2011). The study of conflict, civil war, insurgency, and crime provides a deeper and chronologically lengthier body of research and accepted conclusions than that of violent extremism and the more specific violent jihadism. Yet, to look at violent extremism, even transnational violent extremism, as a completely separate area of study from that of insurgency would neglect the recognition of a potential relationship between the two. It is quite possible for someone to be simultaneously a violent extremist, an insurgent, and a criminal. Classical organizational theory when applied to VEOs suggests that while some members participate in an organization to achieve its stated goal, and are incentivized to do so, those organizational goals can shift, leading to a conclusion that an organization's primary goal is sometimes simply its own continuation (Oots 1986; Rapoport 2004).

A deeper understanding of the relationship between these aspects of violence is essential, particularly in the sphere of livelihoods, employment, and poverty. Poverty is often indicated as one of the principal contributing factors of civil war. Fearon and Laitin (2003) indicate that poverty is one of the most relevant conditions for recruitment into sub-state organizations and ultimately the onset of civil war. Collier and Hoeffler's research further supports the finding that low-income national economies are significant predictors of civil war (Collier and Hoeffler 1998; Maleckova 2005). When VEOs have an operational footprint in multiple proximate countries, and members of those VEOs are drawn from those countries, operating both domestically and internationally, it is reasonable to assume that there may be a blurring of motivations between a domestic agenda and an international agenda (Piazza 2011) or a difference between organizational and individual motivations. The Sahel, with its porous borders, is an important example of this confluence of transnational terrorism and domestic insurgency.

Adding complexity, particularly in the Sahelian context, is the relationship between violent agendas and criminality. With known smuggling juggernauts passing through the region, control of smuggling routes for material commodities or people presents as a lootable resource and coveted asset. Wyler and Cook (2009) noted, "Hotspots of illegal drug activity have emerged in West Africa and East Africa, as well as in Southern Africa. Diverse signs of drug trafficking activity in West Africa during the past five years indicate that this sub-region is emerging as a key warehousing and transshipment hub for large-scale consignments of South American cocaine being smuggled en route to Europe." (Wyler and Cook 2009; see also Aning and Pokoo 2014). According to the International Organization for Migration, nearly a quarter of a million people migrated, often facilitated by smugglers and traffickers, between February and August 2016 from Niger to north Africa (Altai Consulting 2016; Gaffey 2016). While the economic literature links lootable assets with instability (Collier, Hoeffler, and Rohner 2009; Fearon and Laitin 2003) and property crime with poor economic conditions and low wages or unemployment, data suggests that *violent* crime is unrelated to employment or poverty (Becker 1968; Krueger and Maleckova 2002). Further, some research on predation in Iraq and the Philippines suggests that as economies improve and areas become more valuable, insurgent violence rises (Berman, Felter, and Shapiro 2009). Insofar as terrorism and violent extremism are viewed through the lens of violent crime, researchers such as Krueger and Maleckova, based on their research in the Middle East, have suggested that perhaps employment is not a principal factor in participation in VEOs.

Major Theoretical Arguments

Motivations for involvement in VEOs are "multi-determined, driven by multiple causes" (Borum 2011) with differences between individual choices, community participation, and organizational behavior. Fundamental to analyzing these choices and behaviors, one must examine the push factors that encourage pursuit of change from the status quo as well as the pull factors that attract some to a perceived alternate status (Denoeux and Carter 2009). Insufficient study of the varying levels of commitment within and around VEOs and the motivations of their participants and supporters falsely creates an impression that there is a monolithic characteristic with a discrete and consistent set of motivations that can be discovered (Graff 2010).

Research on the motivations for involvement in violent extremism falls broadly into three models: Strategic Model, also referred to as the Instrumental Model; the Natural Systems Perspective; and the Socio-Economic Perspective. Each of these is part of an emerging body of literature that presumes that people involved in violent extremism are primarily rational actors and actively make decisions accordingly (Sandler and Enders 2008). In contrast, a smaller body of literature, largely grounded in psychology, attributes violent extremism to actors who involuntarily manifest abnormal behavior, which is different than the standard societal norms. Among these actors are the mentally ill, violence-seeking individuals, or fanatics who may or may not be capable of being analytical and can appear rational at times, yet have a mindset that is obsessed with a "particular perspective about the world that is so powerful it can encourage violent action" (Ozdamar 2008; Post 1998). As mentioned above, this literature review complements field research on alternate livelihoods in areas vulnerable to violent extremism in the Sahel. As the parameters of the study examine available options and the pursuit of choices, rational behavior is an inherent assumption within the study. The authors have therefore chosen to limit this review to literature that is in that vein.

The **Strategic Model**, sometimes referred to as the Instrumental Model (Abrahms 2006; Berrebi 2007; Crenshaw 1981) is part of the body of literature that presumes that people involved in violent extremism are motivated by political preferences, analyze and evaluate pros and cons of various actions, and adopt violence as a course of action when the expected political return is higher from this action than from alternate options (Bergen and Hoffman 2010). In this view, success equates with attaining certain political goals, whether those goals are occupying territory, gaining political representation, or replacing autocracies with theocracies (Crenshaw 1991; Pape 2003). Where governance is perceived as weak or ineffective, or takes on predatory behavior such as corruption, political goals can emerge as improvements in governance or simply change of leadership. Just as in classical economic theory, rational actors possess stable and consistent preferences, compare expected costs and benefits of all available options, and select optimal expected options to maximize utility.

Proponents of this model see VEOs and their participants as resembling traditional patterns of political or revolutionary movements, including a committed core, potential recruits, and communities that may or may not provide needed services, resources, shelter, and protection. And since motivations between these three categories of people may differ, responses to build resilience against violent extremism need to be tailored according to each category's respective relationship to the movement. At the organizational level, the existing literature suggests that Salafi jihadi groups seek to promote a specific politicized ideology, including the incorporation of Sharia (Piazza 2006; Kepel 2002; Sageman 2004).

Criticism of the Strategic Model, however, points out that since violent extremist groups are often averse to compromise and negotiation, political motivation cannot be an actual driver of behavior, particularly in organizations that have no realistic likelihood of fully realizing their goals in the absence of compromise (Cronin 2011). Particularly in the context of Salafi jihadis, governmental structures and laws that differ from a Sharia legal framework are anathema to their beliefs, and political compromise itself is perceived as sinful.

The **Natural Systems Perspective** also takes the view that rational people participate in violent extremism. Unlike in the Strategic Model, however, the belief is that these people participate in violent extremism in order to realize some form of social gain rather than political return (Roy 2015; Sageman 2004). Participants in VEOs are viewed as "social solidarity maximizers," with some empirical evidence to support that terrorism is used "primarily to develop strong affective ties with fellow terrorists" (Abrahms 2006). It is the sense of belonging and being part of a tight-knit group that drives people to join (Atran 2010). Similarly, research on 326 United Kingdom-based jihadists found that often jihadists share either kinship networks or social networks with other jihadists, with 80 percent in this study having a connection to someone involved in another plot (Klausen 2010). Additionally, data on 474 foreign fighters in Syria or Iraq from Western countries shows that approximately one-third have a familial connection to Jihad (Bergen, Schuster, and Sterman 2015), suggesting attraction and participation are partially related to these personal connections.

The literature that relates to the **Socio-Economic Perspective** examines the extent to which poverty, unemployment, and livelihoods correlate with the attraction of individuals to join VEOs and the communities that support the activities of extremists. Certainly, these conditions can be deplorable for individuals and their families, and efforts to address these challenges are important for social and human development. Yet, the literature on violent extremism reveals a broad divergence in the understanding of the relationship between economic factors and involvement in violent extremism and whether policies targeted at expanding livelihood opportunities and the economic wherewithal of individuals and communities have a negative impact on violence. Much of the debate remains based on theoretical reasoning, rather than empirical studies. And as mentioned above, while researchers see links between economic factors and other kinds of violence, it is not clear whether the same relationship holds for violent extremism. Where empirical evidence is available, it is "limited and fragmented" (ODI 2013).

Macro-Level Results

A substantial portion of the peer-reviewed literature on drivers of violent extremism has focused on macro-level analysis of countries of origin and places of terrorist attacks as a means of understanding the conditions under which violent extremism emerges and is sustained (Abadie 2006; Krueger and Laitin 2008; Krueger and Maleckova 2003; Piazza 2006; Li and Schaub 2004). From these cross-country analyses, which examine data on unemployment rates, economic growth, gross domestic product per capita, and similar macro-level indicators, no consensus has emerged on whether negative economic factors are directly related to participation in VEOs or positive economic factors correlate with resilience to violent extremism. While some studies indicate that there is a relationship between low per capita income and terrorist attacks (Li and Schaub 2004; Bravo and Dias 2006; Freytag et al. 2011), others find no discernable relationship (Krueger and Laitin 2008; Abadie 2006; Piazza 2006).

However, consistent with findings on civil war, there is some emerging agreement that *precipitous changes* in some of these conditions may have a relationship to participation in attacks, particularly among better educated populations (Graff 2010; Collier 2003). This finding is consistent with research that states that change, whether economic, political, or social, can create conditions for instability. In this view, therefore, absolute poverty would not show a direct connection to terrorism (Bjorgo 2004), but rather the relative change in conditions or relative deprivation (Gurr 2005; Collier 2003; Thorsten and Riera-Crichton 2015). Gurr posits that one of these precipitous changes that poses a risk factor for developing countries is a "youth bulge" characterized by a substantial increase in population facing insufficient employment prospects (Gurr 2005).

The literature highlighting weak governance in developing countries as the critical element of allowing VEOs to develop and grow through attraction of recruits and supporters largely suggests that perceived inequalities, including possibly wealth distribution and availability of employment, are points of galvanization (Chenoweth 2005; Gurr 2005; Gurr 1993). As income inequality increases, whether regionally or between ethnicities or other discernable identity groups, there is evidence that insurgent violence increases (Fearon 2008). Using data on 227 communal groups throughout the world, Gurr (1993) found that "identities, equality, and historical loss of autonomy" are major factors in group grievance. Further, Piazza's global quantitative cross-national time-series study shows that countries with minority group economic discrimination are significantly more likely to experience domestic terrorist attacks than countries either without minority groups or without economic discrimination towards minority groups (Piazza 2011). Yet a global study conducted by Abadie, using World Market Research Center's Global Terrorism Index, finds no relationship between income inequality and terrorism, but shows that there is a relationship between political freedom and terrorism. "Countries with intermediate levels of political freedom are shown to be more prone to terrorism than countries with high levels of political freedom or countries with highly authoritarian regimes." (Abadie 2006). In Khalil and Zeuthen's case study of the Office of Transition Initiatives' Kenya Transition Initiative, the authors stress the relatively limited number of people who have been recruited into VEOs, as well as a need to better understand the subpopulations that are vulnerable and their material and non-material motivations for involvement (Khalil and Zeuthen 2014). This raises the question of whether livelihoods and income levels are principal factors, or whether relative deprivation and inequity felt by particular marginalized groups are more prominent considerations.

Micro-Level Results

This near exclusive focus on macroeconomic outcomes in the literature neglects the micro-level examination of economic factors and individuals and presents a weakness in understanding vulnerabilities at the local level. There are, however, a handful of studies that provide insight into characteristics of people who participate in violent extremism. While these studies, explored below, represent the preponderant body of current micro-level literature, the limited geographic focus in part of the Middle East and South Asia requires caution in extrapolating to the Sahel.

Venhaus's examination of 2,032 foreign fighters affiliated with al Qaeda indicates that "economic motivations were the least cited reason for joining a terrorist organization," with some individuals characterized as poor and having been unemployed for extended periods, while others were from more privileged backgrounds (Venhaus 2010). Sageman's study of 172 al Qaeda members reveals that al Qaeda members in the sample do not present as poor, compared with the broader population (Sageman 2004). The Sinjar data, which includes information on 700 foreign fighters who entered Iraq to join al Qaeda, indicates a variety of types of employment on the 156 records stating an occupation, with 42.6 percent of the fighters self-identifying as students (Felter and Fishman 2007). The captured Islamic State personnel records from 2013–2014 provide insight into 4,600 people who joined the Islamic State, revealing that only 7 percent of those who responded indicated that they were unemployed (Dodwell, Milton, and Rassler 2016). Even if one liberally counts as unemployed all non-respondents to the employment question, the study notes that this number only rises to 11 percent. And while the records reveal a variety of types of employment prior to joining the Islamic State, unskilled labor is particularly high, including among people with above average education, raising the question of whether unmet expectations or frustration may have been a factor in deciding to join (Dodwell, Milton, and Rassler 2016).

The Rand Corporation's examination of 335 Palestinian terrorists shows that there is some suggestion that both higher education and standard of living, including income level, are positively correlated with participation in terror organizations and with becoming a suicide bomber (Berrebi 2010). This study reinforces findings from interviews with 250 Palestinian militants, including suicide bombers who had not completed their missions, in which none was uneducated or exceedingly poor (Hassan 2001). In each of these examples, some people were employed, others were not, and levels of wealth and poverty varied, with some indication that income and education levels were generally average or above average for their population of origin. This is consistent with the emerging questions that some researchers have raised about the role of unemployment in attraction to VEOs (Beber and Blattman 2011; Berman, Felter, and Shapiro 2009).

Two additional studies of note are worth considering when reflecting on community support for violent extremism. One conducted by Krueger and Maleckova examined public opinion polls among 1,357 Palestinians. An examination of the data by occupational status reveals that support for armed attacks against Israeli targets was strongest among students, farmers, merchants, and professionals, and not among the unemployed (Krueger and Maleckova 2002). There is some suggestion that perhaps the unemployed and deeply impoverished need to have basic survival covered before they embrace violent extremism. Another study in Pakistan conducted a 6,000-person survey that measured affect towards four militant organizations. "Contrary to expectations, poor Pakistanis dislike militants more than middle-class citizens. This dislike is strongest among the urban poor, particularly those in violent districts, suggesting that exposure to terrorist attacks reduces support for militants" (Blair et al. 2012).

Yet, one should be cautious not to use these limited studies as definitive or representative of all participants in VEOs. Certainly, the small quantity of records and the geographic focus (Iraq, Syria, Israel/Palestine, Pakistan) raise the question of generalizability to other geographic contexts. Economic, social, and historical differences between these countries and Sahelian countries could manifest in differing behaviors and motivations. Poverty levels and distributions, for example, are different in the Sahel than in the studied countries. Similarly, the breadth of employment options is narrower. If Sahelian countries, for example, provide few vocational or livelihood pathways, the occupational choice of joining a VEO may have a more significant weighting than it would in other geographies. Additionally, motivations for action in Israel, Syria, and Iraq—arguably critical geographies in Islamic history and apocalyptic narratives—may attract different types of supporters to VEOs than comparatively outlying regions such as Burkina Faso and Niger. And while the origins of individuals in the al Qaeda and Islamic State records are from a variety of countries, the limited number of individuals from each respective country makes it impossible to draw broad conclusions about the relationship between employment, livelihoods, and attraction to violent extremism in those particular contexts. The mere fact that these individuals traveled a great distance and presumably incurred expenses suggests that they had the economic means to do so. These self-selected migrant jihadists may, therefore, be no more committed to the cause of jihad than others, but rather simply have the means, tenacity, or luck to participate in jihad abroad. Where the barriers to entry for local Sahelian-based VEOs are comparatively lower, the ranks could be drawn from people with lower economic means.

Field Evidence

Chief among the reasons for limited rigorous field studies are the challenges of broad community-level data collection due to sensitivities around the subject matter. Validity concerns abound when subjects are uncomfortable or afraid to answer questions honestly. Similarly, opportunities for direct engagement with participants and former participants of VEOs are rare, given the recognition that violent extremists are largely a hidden or difficult to reach population. Moreover, successfully reaching this population can poses a potential danger to both researchers and respondents, whether from other violent extremists or from state security services.

There is, however, a small pool of field research that is adding texture to the debate exploring the role of youth joblessness in explaining attraction to violent movements. In Somalia, Mercy Corps found through a survey of 1,089 youth participants in one of its programs in Somaliland and Puntland that "youth who are involved in civic engagement initiatives are less likely to endorse political violence, but are more likely to have engaged in such violence…and youth who felt they had more economic opportunities were at greater risk of engaging in and supporting political violence, though actual employment status did not relate to propensity towards political violence" (Mercy Corps 2013). In Iraq and the Philippines, Berman and his colleagues found "a robust negative correlation between unemployment and attacks against government and allied forces and no significant relationship between unemployment and the rate of insurgent attacks that kill civilians" (Berman, Felter, and Shapiro 2009).

One must consider, even for the previously employed, that joining a violent extremist movement may be seen as an occupational choice. Perceptions, whether accurate or not, abound that VEOs like Boko Haram, the Islamic State, al Qaeda, and al Shabab pay salaries that typically exceed average local wages

(Hassan 2012; Mercy Corps 2016). In Nigeria, Mercy Corps interviewed 47 former youth members of Boko Haram and 26 youth who resisted recruitment to Boko Haram. While the data did not yield a clear profile of a Boko Haram member related to employment, interestingly, the study found that some of the youth saw membership in Boko Haram as an opportunity to "get ahead through business support," with many youth accepting loans or joining with the hope of receiving capital for business activity (Mercy Corps 2016). Research in Kenya on youth and political violence found that "Having a full or part time job that provides a cash income increases young people's likelihood to disapprove of the use of political violence" (Kurtz 2011). And Blattman and Annan used a field experiment to determine that when ex-combatants and other high-risk youth in Liberia were offered extended skills training, counseling, and capital for livelihoods (as alternatives to illicit resource extraction), program participants were significantly more likely to be engaged in a legitimate livelihood than the control group and less interested in joining the fight in Ivory Coast (Blattman and Annan 2011). A subsequent examination of the program in Liberia by the authors further illuminated that improvements in skills training, including for agricultural work which is prevalent in Liberia, should be coupled with access to conditional cash transfers, rather than one-time capital infusions, and that future economic incentives were important in decreasing participation in illicit activities (Blattman and Annan 2016). Yet even with this finding, the authors caution that "none of the existing evidence suggests that there is a large or strong link between economic incentives and violence and recruitment" (Blattman and Annan 2011).

Further, in Uganda, researchers conducted qualitative interviews with approximately 150 former abductees, community and clan leaders, and commanders from the Ugandan armed forces and the Lord's Resistance Army (LRA). In the case of the LRA, abduction was a key tool for child and adolescent recruitment. And once a member, violent punishment, fear, camaraderie, and cosmology served as incentives for continued participation, rather than material assets. "The impoverished LRA seldom provided material incentives. Just 5% report material rewards, mainly food. Money or loot was rarely given, even to officers. Such rewards were promised upon victory, however. 'They used to tell us,' said one abductee, 'that if we fight and overthrow the government then we would get wealth, and even the young soldiers would get high ranks'" (Beber and Blattman 2011).

Research conducted in northern Mali examined the effectiveness of multi-track approaches to mitigating violent extremism. Using a quasi-experimental design and survey methodology with a sample of 200 residents of two towns in northern Mali, the study examined differences between the treatment and control towns related to multi-year programming on market-driven employment, capacity building, French literacy, and radio sensitization. The findings of the study revealed that residents of Timbuktu, where five years of various types of USAID programming and messaging had been used, had cognitive and behavioral differences from the neighboring town of Dire. Importantly, however, "Just as with the bivariate analyses, the regressions found no measurable differences between the two in the 'higher level' answers of whether the U.S. is fighting Islam or terrorism and whether or not al Qaeda's use of violence was justified under Islamic law" (Aldrich 2014).

Opportunity Cost and Choices

Where does this leave the question of CVE and livelihoods? Policy makers are confronted with the challenge of no identifiable and consistent motivations for involvement with VEOs, differing views on the role of economic conditions and employment on attraction to these organizations, and limited empirical evidence helping to point the direction for investments. Yet anecdotal information suggests redressing economic and equity challenges in weak states, including livelihood enhancement, could serve as a vehicle for raising the opportunity cost of joining VEOs. In the absence of conclusive evidence, it may be reasonable to assume that for some, an increase in trainings that lead to livelihoods, provisions of capital for business expansion, and greater access to markets may increase incomes sufficiently to keep them from seeking additional or alternate incomes through illicit activities. For others, this approach may reasonably be assumed to have no likely impact, as motivations for participation are driven by other issues. If motivations for joining VEOs are multi-determined, then interventions to enhance individual and community resilience need likewise to be multi-directional, tailored to the specific context in which VEO activity threatens vulnerable populations and stability.

As bilateral and multilateral funders encourage incorporation of development tools alongside diplomacy and defense approaches to combat violent extremism, there have been important steps taken in providing guidance for assessment of drivers of extremism and recommendations for program design. USAID, for example, has provided a relevant policy framework (USAID 2011), a coordinated CVE strategy with the Department of State (U.S. Department of State and USAID 2016), a comprehensive guide to drivers of extremism (Denoeux and Carter 2009b), and a programming guide for design considerations (Denoeux and Carter 2009a). Yet, despite these efforts and the availability of searchable online resources such as the Development Experience Clearinghouse,[4] there is a lack of readily available material on specific programming designs and theories of change across funders, implementers, and geographic regions. While it appears that the application of development assistance to CVE across donors and implementers leans towards community cohesion and dialogue, sensitization and awareness messaging, economic empowerment and skills-building of youth, there are no current studies that comprehensively examine the breadth of CVE programming that has been and is being implemented. The closest available study conducted by Management Systems International provides an inventory of CVE monitoring systems in U.S. Government-funded programs (Carter and Dininio 2012).

Further, as discussed above, the highly limited empirical evidence on programmatic effectiveness at CVE globally and more acutely in the Sahel affects the ability to know what is working and what is not. Arguably, CVE programming has not had a long history either globally or in the Sahel. USAID's West Africa portfolio, for example, first introduced CVE programming through the Trans-Sahel Counter-Terrorism Program in 2006 (USAID 2016). Even where programmatic evaluations have been completed, there is some indication that weakly articulated theories of change create hurdles for effective measurement of impact related to community resilience to violent extremism (EnCompass 2011). It is impossible to say if this is a broader issue, given the available information. So, while mezzanine level programmatic guidance on drivers and vulnerabilities may appear appropriate and reasonable at the theoretical level, until it is rigorously field tested, it remains merely speculative.

[4] See dec.usaid.gov.

CONCLUSIONS

While the potential opportunities afforded to poor individuals and households by livelihood diversification efforts are well-recognized, the challenges of how to engender access and effective uptake of less or non-climate-dependent livelihood opportunities for more disadvantaged segments of populations have long been recognized as a key problem for development programming, as such populations typically lack the education, skills, financial capital, and/or social networks that are needed for such opportunities to be successful.

At the micro level, much existing research points to a wide range of context and structural factors, and individual endowments, that shape the kinds of places likely to be more amenable to diversification efforts, and who within communities may be better placed to successfully benefit from livelihood programming. Thus, locational and individual targeting are important elements for successful programming. The key structural factors that the literature notes as essential for facilitating effective promotion of non-farm livelihood activities and non-farm economic growth include: good infrastructure and transport; communication and information infrastructure; market, communication, and information access; and an overarching policy environment that facilitates small-scale, less formal, and more rural enterprises and small businesses.

There is also ample evidence that several characteristics of individuals, in addition to the constellation of place-based context factors, ease the ability for some households and individuals to diversify their livelihoods out of subsistence farming and livestock more so than others. Key among these are literacy, numeracy, and education levels; skills; financial capital; and social or professional networks. These same underlying structural constraints on individuals are also commonly highlighted as key underlying contributors to high unemployment in SSA, particularly among youth. Much existing research suggests that being able to take advantage of higher earnings and non-climate-dependent livelihood opportunities is conditional on already being better off to begin with.

Overall, a range of empirical studies from SSA point to household factors such as age, gender, level of education, and existing farm and non-farm assets, locational/geographic factors including road conditions, market access, and availability of water and electricity, and broader structural factors, such as credit access, regulatory environments, and general business conditions, to play key roles in determining the likelihood, sustainability, and level of productivity/success of micro- and small business enterprises and other less and non-climate-dependent livelihood activities. At the same time, a wealth of studies also demonstrates that complex interactions among place, policies, markets, institutions, and social and cultural factors contribute to divergent or unanticipated development outcomes. For this reason, it is necessary to be cautious about blanket assumptions that uniform programming prescriptions will work similarly in different areas, as subtle differences in constellations of factors and their interactions could lead to unintended differences in outcomes.

Because targeted populations typically lack the education, skills, financial capital, and/or social networks that are needed for such opportunities to be successful, understanding how better to design, target, and deliver effective entrepreneurship training for self-employed individuals or micro- and small business enterprises receives strong attention in academic research and systematic reviews of development programming. Academic research emphasizes a need for both higher productivity entrepreneurship (as opposed to low productivity entrepreneurial activities that are common in SSA) and more diversity of the kinds of entrepreneurial activities that are done. More productive and opportunity-driven entrepreneurship can be supported and expanded through effective skills training for nascent entrepreneurs. When coupled with facilitated access to credit, such programs address all three of the major constraints to productive entrepreneurship at the micro level: business skills, effective networks, and sufficient capital to start and expand enterprises.

While there is generally a positive outlook on the potential for such programs to foster stronger employment opportunities, growth, and livelihood diversification in countries, it is important to note that several knowledge gaps still remain, including with respect to effective targeting. The academic literature consistently highlights that the current evidence base for entrepreneurship and vocational training program effectiveness draws on relatively few rigorous impact studies, conducted over too short time periods, and often with too small sample sizes to enable rigorous analysis and power to detect nuanced differences in impacts across different types of participants. In turn, this limits the overall knowledge base on how to design and implement future development programs that are appropriately tailored for given contexts, and are more likely to achieve their intended effectiveness.

The addition of CVE concerns into livelihood diversification objectives brings no shortage of additional challenges and uncertainties. There is a growing body of literature that examines the emergence and expansion of VEOs and the attraction and recruitment of participants and supporters. But while scholars are beginning to help policy makers and practitioners gain some understanding of the conditions under which violent extremism likely thrives, there remain enormous gaps in understanding and an absence of a robust empirical evidence base to draw firm conclusions on many of the potential factors of vulnerability. Those gaps are particularly acute in Africa broadly and the Sahel specifically.

The literature highlighting weak governance in developing countries as the critical element of allowing VEOs to develop and grow through attraction of recruits and supporters largely suggests that perceived inequalities, including possibly wealth distribution and availability of employment, are points of galvanization. As income inequality increases, whether regionally or between ethnicities or other discernable identity groups, there is evidence that insurgent violence increases. It is not clear whether livelihoods and income levels are principal factors or whether relative deprivation and inequity felt by particular marginalized groups are more prominent considerations.

At the micro level, there are a handful of studies that provide insight into the characteristics of people who participate in violent extremism. Yet, while these studies represent the preponderant body of current micro-level literature, the limited geographic focus in part of the Middle East and South Asia requires caution in extrapolating to the Sahel. One must also consider, even for the previously employed, that joining a violent extremist movement may be seen as an occupational choice. For example, one study found that some of the youth saw membership in Boko Haram as an opportunity to "get ahead through business support," with many youth accepting loans or joining with the hope of receiving capital for business activity (Mercy Corps 2016). Research in Kenya on youth and political violence found that "[h]aving a full or part time job that provides a cash income increases young people's likelihood to disapprove of the use of political violence" (Kurtz 2011).

Policy makers are thus confronted with the challenge of no identifiable and consistent motivations for involvement with VEOs, differing views on the role of economic conditions and employment in attraction to these organizations, and limited empirical evidence helping to point the direction for investments. Yet anecdotal information suggests redressing economic and equity challenges in weak states, including livelihood enhancement, could serve as vehicle for raising the opportunity cost of joining VEOs. In the absence of conclusive evidence, it may be reasonable to assume that for some, an increase in trainings that lead to livelihoods, provisions of capital for business expansion, and greater access to markets may increase incomes sufficiently to keep them from seeking additional or alternate incomes through illicit activities.

Academic research drawing on rigorous impact studies to identify which types of training programs tend to work better for certain types of target beneficiaries finds that such programs can have stronger impacts for younger participants, while training programs that are also combined with finance activities have stronger impacts than those that focus only on business training or financial training alone. It also finds that financial activities focused on cash or in-kind grants lead to stronger impacts than microcredit activities. Relative to entrepreneurship training, financial access activities on their own have also been found to have smaller impacts. Lastly, analysis suggests that women participants often appear to benefit most from finance activities that provide access to credit, rather than skills training. Appropriate targeting is also important, with some studies pointing to stronger impacts for training participants who already had higher skills at program start, while other studies suggest that longer, more intensive, and more tailored training programs that are specific to the knowledge gaps of participants are more effective.

Finally, if poverty reduction is an overarching aim, then it is also important to note that in SSA, research suggests this still tends to be more strongly associated with agriculture-led growth than growth in non-agricultural sectors. However, there is substantial variation across countries, and such differences tend to relate to differences in the structural and macro-level characteristics of countries.

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