

SIA KOUANZA – GAYA RAPID ASSESSMENT



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**EXECUTIVE SUMMARY**

For the majority of farmers in the Sia Kouanza area, the immediate question about modern-day agriculture is not one of sustainability but one of survival. Development is severely constrained by extreme poverty. Factors exacerbating this poverty include drought, malnutrition, limited primary education opportunities, limited access to technology, disease pandemics (both human and animal) and ecosystem degradation. Food security and water availability are likely to be severely compromised by rising temperatures and greater variability in rainfall. Agricultural producers are operating with limited resources in fragile environments sensitive to even minor shifts in temperature and rainfall patterns. The livelihoods of village dwellers are particularly precarious because of isolation, small farm sizes, lack of secure (formal) land tenure, lack of access to technology, lack of access to electricity and fluctuations in global commodity prices and farm inputs.

This report provides a baseline analysis of farmer knowledge, attitudes and practices (KAP) in relation to capacity, ability and motivation for change towards agro-ecological, market-oriented farming. KAP analysis and discussion is based on the situational analysis resulting from the field mission carried out from 8-28 October 2016, during which 12 key informant interviews were held at institutional level and with development partners and private sector players and 20 direct beneficiary focus groups were carried out in a total of 20 villages in the Sia Kouanza area, with additional information for 5 villages was provided by the WASH consultant.

The Situational Analysis summarizes key information on Compact priority issues and provides insight into the root causes underlying current farmer difficulties, performance gaps, and agricultural governance and about the key challenges that farmers face for adaptation to climate change and innovation.

The combined results of the situational analysis and the KAP analysis provide the framework for identifying beneficiary needs and priorities. Factors specific to the Sia Kouanza area complement the existing Compact Training Strategy proposed in the September 2016 Konni Analysis Report, and existing training provision and partners are identified. Given the particular socio-cultural characteristics of the Sia Kouanza area, constraints to technical efficiency of training provision and delivery and key risks for the implementation of the training program are discussed. Specific roles and structuring of stakeholder participation in the Compact Training Program are proposed, Based on a combined Konni and Sia Kouanza stakeholder analysis in relation to training design, development and delivery.

General conclusions are drawn in relation to the Sia Kouanza area, and specific recommendations are made for training strategy implementation and Compact Program management that are relevant and applicable to both the Konni and Sia Kouanza intervention areas.

**I.- PROBLEM STATEMENT**

The population explosion over the past 20 years has had visibly deleterious effects on the agricultural economy, while the State has increasingly disengaged itself through a visible absence of supportive policies, thus limiting the area’s productive and development potential.

Traditional agriculture and fishing have become not only a question of survival but also the main lever for economic and social development in one of Niger’s richest agricultural production areas. According to the Director of Agricultural Services in Gaya, the Dosso region has 2/3 of the country’s agricultural land; Gaya has 2/3 of that agricultural land. However, the agricultural economy has yet to be developed. The absence of modern production tools is shockingly patent, as agriculture is practiced on small, 1-2 hectare family inherited land plots using traditional tools and methods.

The area’s agricultural potential vegetates in productive activities incapable of covering the basic food and nutritional needs of the local population, in informal cross-border activity that becomes gangrenous for the local and national economy, as well as State fiscal health and amidst deeply ingrained gender disparities and discrimination that generates bitter but silent social consequences that limit market-oriented agricultural development.

As the traditional agricultural system approaches its ultimate limits, the risk of bad harvests haunt villagers. Whereas 20 years ago, agricultural production was the mainstay of the family economy and welfare, today declining productivity and yields have shifted interest to horticulture, as a money-generating activity but with little or no added nutritional value for the family, and to livestock as a “hoofed savings bank”, such that families eat practically no meat at all (except on special holidays or family events).

However, the pastoral system has been critically weakened by the degradation of the ecosystem; certain plants that 20 years ago were extensively used for grazing have disappeared, and access to acceptable quality water has pushed villagers to share their well water with animals. Farmers are also confronted with recurring animal health pandemics, such as cattle lung disease, foot and mouth disease, nodular dermatosis, enteric, trypanomiasis, and metabolic disorders because of nutritional deficiencies. Farmer access to animal health services is limited, while their decreasing farmer incomes limit their ability to access available preventive and animal health treatment. Cost of vaccines and treatments stand at 3.600 cfa ($7) / year per head of cattle, sheep or goat.

In the absence of appropriate technologies and in the face of a growing devaluation of traditional knowledge and wisdom regarding nature, extensive agriculture has, until now, been the only recourse to increasing production. This practice is no longer sustainable. New, different and innovative food production practices must be sought.

**II.- SITUATIONAL ANALYSIS[[1]](#footnote-1)**

The Sia Kouanza area of Dosso-Gaya region is an economically poor, natural resource rich agricultural area of Niger whose increasing population growth amidst divergent climate trends has led to a stagnating agricultural production. This section provides a synopsis of Compact priority issues, root causes of the present situation, key challenges farmers face for adaptation, and a SWOT analysis. Annex 1 provides a detailed discussion of the situational analysis.

1. PRIORITY ISSUES

**Table 1: Priority Issues Synopsis**

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| --- | --- |
| **Key Issue** | **Synopsis** |
| Land and production | Agriculture and pastoralism are the most prominent activities; rain fed production, dependent on natural constraints and essentially a subsistence activity; small gendered parceling of land (0.25-1 ha) and reliance on traditional farming methods and tools; shrinking farmland and the subsequent end of bush-fallow rotation systems has led to soil-surface degradation and lower agricultural outputs; production capacity has not kept up with rate of population growth and expanded food needs; a lack of innovation in farming techniques have furthered constrained agricultural production. |
| Social Organization | Weak; no cooperatives and few functional farmer groups; men have informal solidarity groups and women informal savings groups; the role of elders is negligible. |
| Markets and Inputs | Main markets are local and access is on foot, oxen-drawn cart or motorcycle; sales are individual; access to improved seeds is negligible; fertilizer is purchased on the local market or across he border in Benin or Nigeria, which is the cheapest; pricing is market-defined; farmer market-orientation is weak and pre-commercial. |
| Gender Discrimination | Women are discriminated against for access to land, inputs and other resources; in 4/25 villages visited, women are excluded from economic and market dynamics. |
| Credit and Savings | Savings is not a cash concept but a livelihoods resource concept; The majority of women have informal savings groups, with monthly contributions that, in general, vary from 1.000-2.500 Fcfa ($1.75-$4.39); some men have solidarity savings groups; investment mainly concerns renewal of traditional tools |
| Food, Nutrition and Health | Intra-household dynamics are related to home food production; food insecurity is driven by variable crop production, with periods of food shortages in between harvests, and instability of crop yields; dietary diversity is poor; hygiene is poor; disposable income is used on food and health. |

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| **Key Issue** | **Synopsis** |
| Ecological literacy and practices | Farmers in general, independent of gender and age, are very aware of the need for improved seed quality and variety; chemical fertilizer and pesticide use is generalized and used directly on crops without any type of protection and without knowledge of appropriate dosage; leguminous plants are not specifically used for soil fertility purposes and there is little use of vegetative cover or intercropping; farmers have neither the knowledge of nor practice techniques as “soil nutritionists, but are aware that organic fertilizer is much better for soil nutrition; growing competition over land and natural resources leads to encroachment on wild/unmanaged land and wetlands. |
| Coping and Adaptation Strategies | The ability of farmers to cope with increases in temperature and loss in agricultural productivity is negligible; common adaptation responses to climate change focus on monetized value exchange of services. |
| Livelihoods Resources and Income-Generating Activities | Income generation is highly dependent on three cash crops - rice, cowpea and groundnut – and livestock, with clearly gender differentiated roles; non-farming sources of income generation include transport services (youth, older men) and arts and crafts (older men and women). |

1. Root Causes

There are numerous factors that exacerbate the situation of poor agricultural productivity and limited availability of water in Gaya.

**Table 2: Root Causes Synopsis**

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| --- | --- |
| **Cause** | **Synopsis** |
| Population Growth | 4% annual growth imposes increasingly strong pressures on the fragile natural resources; land security is a major issue; land use and land ownership are not legally protected |
| Lack of diversification | predominance of crop and livestock farming and poor intra-sector diversification |
| Climate Change | A reduced food supply and income from agriculture as a result of climate change impacts (soil erosion and loss of soil nutrients, invasion of weeds and insects) has increased the incidence of malnutrition and food shortages. |
| Governance of agricultural development | access to water remains difficult for most farmers, as a result of limited financial resources, a dysfunctional national water policy and ineffective agricultural development policies; yields are half – one third of what they were 20 years ago; governance in agricultural development is affected by heavy reliance on foreign aid, insufficient means available to the decentralized technical services and communes, and widespread corruption in the administration; climate change and deepening rural poverty have been accompanied by an increasingly weak decrease of Government agricultural services and support programs. |
| Weak rural institutions and infrastructure | Local agricultural departments have difficulty in responding to the needs for support and advisory services of the poorest farmers, in part because of low incentives and inadequate resources; Isolation and poor communications limit the development of a market-based rural economy; and the lack of public infrastructures deprives rural populations of access to basic services. |
| Underdeveloped human and social capital | Weak human and social capital, severely limiting the ability of farmers to undertake more remunerative and higher value-added agricultural and non-agricultural income-generating activities |

1. Key challenges for adaptation

The barriers to increasing the resilience of Gaya farmers to climate change are related to the biophysical environment, the availability of financial resources and the institutional capacity.

**Table 3: Key Challenges for Adaptation Synopsis**

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| **Key Challenge** | **Synopsis** |
| Water access and management | Infrastructure for extracting the water (wells and bore holes) and distributing it to the population is very limited, because of a lack of financial resources and technical difficulties; no reliable information on available water resources. |
| Food insecurity and shortages | Village-driven and managed solutions require capacity-building |
| Diminishing agricultural productivity | Institutional capacity at the village, site or department level is insufficient for raising finance or for managing them; the suitability of specific crops for the zone has not been determined; weather information is not delivered in communication channels accessible to local communities; potential mechanisms for reversing land and natural resource degradation are hampered by weak institutional capacity, lack of farmer knowledge, lack of financial resources, and traditional land tenure system. |
| Gender inequality | Women suffer gender‐based inequalityin rights, resources and voice that limits their access to coping and adaptation strategies and increases their risk of suffering greater damage from climate change and health issues. |

1. SWOT ANALYSIS

**Table 4: Summary SWOT Analysis**

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| **STRENGTHS**  Government concern over agricultural productivity: national, regional (NEPAD, ECOWAP) and international policy and strategies for poverty reduction and economic growth.  Rural development is perceived as the engine of the economy.  Powers delegated to commune level (public investments and natural resources).  Farmer experience in the face of changing climatic conditions.  Abundant surface and ground water resources.  Irrigation potential.  Community solidarity.  Farmer motivation to improve productivity.  Efforts to create farmer organization structures were initiated.  Openness to models for change that works.  Many NGOs involved in agricultural development  Regional market demand.  Private sector motivation and investment. | **WEAKNESSES**  Non-capitalization of indigenous knowledge and past development projects.  Responsibility for rural development is shared among four different ministries.  Financial means of communes not guaranteed and responsibilities with regard to local resources determined on a case by case basis.  Underutilization of existing natural and human potential.  Weak rural institutions and dependence on aid.  Weak rural banking system.  Lack of adequate storage facilities.  Market narrowness and weak purchasing power.  Weak demand-revenue elasticity due to inertia in consumer habits.  Farmer organizations perceived as artificial, not  autonomous and dependent on projects.  Investment on elite needs and objectives.  Weak to inexistent cash savings levels.  Unequal village access to Government programs  Government policies that privilege staple crops in detriment of development of diversified agricultural potential. |

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| **OPPORTUNITIES**  Village relocation through exchange-based (technology, social infrastructure) redistribution.  Communes are local sources of guidance on development, and they are delegated to supervise the construction and maintenance of public investments.  Demand for farmer organization.  Sectoral development of local agricultural equipment industry.  Great potential for improved water use efficiency.  Capacity and potential to expand in both volume and variety of production.  Ecotourism.  Potential for local partnerships with other donor, NGOs and private sector partners. | **THREATS**  Increase in mean monthly temperatures.  Further reduction in river flow.  Illiteracy and poverty.  Continued population growth increase.  Persistent and deepening gender discrimination and economic exclusion of women.  Vague or poorly understood definition of the prerogatives of communes may foster confusion with regard to responsibilities over collective productive resources.  Increasing resistance of invasive weeds and pests.  Spreading of human and animal health epidemics.  Increased conflicts between herders and farmers.  Socio-ethnic-geographic rivalry.  Unequal access to information resources.  Oligopolistic organization of markets.  Promotion of inadequate technologies.  Lack of clarity of role of private operators and public  sector with regard to advisory services and support.  Clientelistic/partisan private sector development  State intervention in market activities and private sector development |

**III.- KAP BASELINE ASSESSMENT AND ANALYSIS**

A Knowledge, Attitude and Practices (KAP) survey is a quantitative method that provides access to quantitative and qualitative information on beneficiary needs, aspirations and expectations in relation to Compact goals and objectives. KAP assessments reveal misconceptions or misunderstandings among beneficiaries that may represent obstacles to the activities that MCC would like to implement and potential barriers to behavior change. Note that a KAP survey essentially records an “opinion” and is based on the “declarative” (i.e., statements). In other words, the KAP survey reveals what was said, but there may be considerable gaps between what is said and what is done.

1. OBJECTIVES

The baseline KAP assessment carried out in Sia Kouanza (Tanda Commune) was aimed at establishing the current status of agricultural production practices, learning and natural resource management in the Sia Kouanza are in order to inform Compact program activity design and development. In specific terms, the assessment was intended to establish the following:

* Measure the extent of the present known agricultural production practices of farmers; provide new tangents of a situation’s reality.
* Gain a general understanding of the knowledge, attitude, and practices in relation to agro-ecological, market-oriented commercial agriculture; identify what is known and done about commercial agriculture.
* Establish the baseline (reference value) for use in future assessments and help measure the effectiveness of training activities ability to change ecological agricultural production and NRM-related behaviors.
* Suggest a training strategy that reflects specific local circumstances and the cultural factors that influence them; propose activities that are suited to the respective population involved.

1. ANALYSIS and DISCUSSION

Analysis is based on the information gathered from focus groups, key informant interviews and active field observation. Annex 2 provides a discussion on the survey instrument and possible bias and methodological limitations. Annex 3 provides summary tables on KAP analysis results.

Please see Astrid Ruiz-Ramón’s November 5, 2016 Sia Kouanza Mission Report for a description of the methodological approach and her September 23, 2016 Konni Rapid Assessment Report, Annex 3, for a full technical description of KAP analysis methodology and content.

**B.1. Agricultural/ production practices**

Tables 1-4 in Annex 3 summarize the salient characteristics of agricultural production, practices and farmer attitudes and behaviors, as well as climate change impacts on production and animal and human health, in the villages where focus groups were carried out.

***B.1.a Rain fed agriculture***

Agricultural production is essentially rain fed. Despite the financial and human resources dedicated by different development projects carried by the African Development Bank, the World Bank, UNDP and others since the 1980s, to improve productivity and irrigation and to fight against climate change and instore coping mechanisms, expected results have not been attained. The level of adoption of recommended technical programs has been weak and impact on production has been negligible. Although the reasons for this are not clear, what does seem clear is that aid programs for improved agricultural production and sustainable farming have not effectively addressed socio-cultural factors that define farming over time and space, in terms of the specific evolution of material and social needs and constraints.

Focus group discussion and observation of village and market activities reveals that agriculture is practiced in terms of functional separation; that is, there is no knowledge of integrated agriculture. At the same time, although, over time, farming activities and types of crops have had to be adjusted to increasing natural and social constraints, farmers, in general, believe that agricultural practices are what they are, and that they must accept what Mother Nature doles out. Farmers make their decisions not only on the basis of the information they can get from different sources, but also on their direct observation of micro-local ecological conditions. In general, the absence of agricultural services and the isolation of many villages in the Sia Kouanza area has led to what could be termed “endogamic” evolution of farming practices, limited to the immediate surroundings, thus leading to stagnation of farming practices and an “involution” of market-orientation. Thus we find that in all the villages, chemical fertilizer is considered the solution “per excellence” for improving yields, as this is what was promoted and financed 20 years ago.

Harvesting, conservation and multiplication of seeds for the next planting season has always been a strong link in the ritualized technical chain of agricultural production, as a technique to stagger harvests. Today, after two decades of recurrent droughts and flooding, traditional seed varieties compete with improved varieties, such that even when improved or early seed varieties are introduced, they are used along with the traditional varieties. Farmers have explained that improved cereal seeds, especially for sorghum, require well-fertilized soil and are very sensitive to variations in rain fall. Hybrid seeds are more sensitive to parasites. The cobs or ears are harder to conserve and therefore less dependable for constituting a reserve for the next planting season. It requires strict respect of the hoeing calendar, and farmers still use manual tools and so cannot respect it.

Traditional varieties have better yields when rainfall is good and their long stems with abundant grain is considered more productive than the short stems that are thicker but have less grain and are also more difficult to tie into a bundle. The risk of planting the “traditional” variety is thus worth it. The choice of “modern” or “traditional” varieties is made in function of the length of their development cycle: the shorter the better, but the cost is decisive (cheaper on the Nigerian market).

This underlines the logic behind farmers’ behavior, dominated by the worry of anticipating expected risk (hard times) and evidencing expert knowledge of their different crops. It should also be mentioned that Government information, provision and distribution of improved seeds are not very efficient. Farmers have no other choice than to continue selecting their best traditional seeds for the next harvest. In other words, traditional seed varieties are considered without risk; the modern varieties can produce greater yields, but are risky in terms of their response to variable rainfall. Fertilizer is, in consequence, applied by seed pocket and not by spreading it in the field, and in function of plant sprouting.

Because agriculture is extensive, with limited access and therefore use of fertilizer (both organic and chemical), harvests are a result of amount of rainfall but also of land surface, soil quality and quality of labor (i.e. in relation to available tools). Access to land is a dominant concern in this predominantly “victim” attitude. This has created inequalities among villages, along lines defined by the constraints resulting from climate change (flooding, invasion of weeds and insects, distance from the river, distance from a main market) and available land for extending agriculture. There is only one village –Ladan Koira – where adult men producers (decision makers over land and crops) – where agriculture as an activity and climate change were both considered positively looking towards the future (planning attitude), indicating that land is not a particular concern. Rice farmers in villages located along the river bed also rent to farmers in villages located between 1-5 km from the river.

Farmers across the gender and age spectrum are open to innovation, but because they have a generalized attitude of being “victims” of Mother Nature and of the existing production system, they will not actively seek to innovate; they need to see that the innovation works and they need to be trained to implement it. Farming as a productive activity requires both material and religious competencies, a ritualized technical chain of production that is directly linked to human relationship with Nature (soil fertility and rainfall) to ensure a successful harvest. New agricultural practices not based on any links to traditional techniques are therefore difficult to integrate into the existing production system, unless farmers can see with their own eyes that it works.

***B.1.b. Inputs, tools and techniques***

Work in the fields is not mechanized, and uses sometimes animal traction (but most of the time it is performed by hand). As in the case of improved seeds, the process of replacing of traditional tools and the generalization of modern ones reveals the dovetailing of the representation of agricultural work and the technicity of agricultural production. Tools, including animal traction (oxen-drawn plows) are more than simple instruments; they have social (wealth and prestige) and ritual connotations rather than purely economic ones. The Sia Kouanza area has, in the past (in the ‘70s and ‘80s), benefitted from multiple Government and donor projects (functional literacy, establishment of producer groups, technical training, in-kind credit in the form of goats, sheep and oxen drawn-carts). Twenty years later, farmers continue using rudimentary hand tools and require increasing quantities of chemical fertilizer to achieve even minimal yields, and most no longer have their traction tools, as they “had” to sell them. This has led to increased use of chemical fertilizer. Despite the fact that many farmers during focus group discussions owned up to the fact that it is destroying the soil’s productive capacity, and that organic fertilizer, combined with fallow periods to regenerate soil fertility, is definitely better for recovery of ailing soils, many adult male farmers expressed the repeated desire to own tractors, while younger male farmers expressed the desire to own oxen-drawn ploughs and carriages. Both were based on the “need” to fertilize increasingly hard-to-plough soils with increasing amounts of chemical fertilizer, reinforced with organic fertilizer.

Regardless of the fact that tractors are inadequate for today’s existing soil conditions, male farmers see them more as a labor/time-savings device, rather than a production/time- savings device, that will free women up from farm labor so they can better realize their household responsibilities, effectively limiting women’s active participation in agricultural economic life. In other words, farmers, in general, see more modern agricultural tools that depend on animal traction or motor power, not as an economic advantage but as a social advantage.

Horticulture can be considered a rather “new” technique practiced by an increasing number of villages. But is practiced more as money-generating strategy than a nutrition-diversification strategy, as most of the harvest is sold on the market.

***B.1.c. Gender roles***

Although gender roles in agricultural dynamics vary within the Sia Kouanza area, with stark contrast between villages where women actually work the land and go to market and those (4 of 25) where women are prohibited from doing either, agricultural production is consistently gendered with respect to crop dynamics and value. (See Table 7 in Annex 3)

Women do not participate in land clearing and soil preparation of their parcels (inherited from their family or lent by their husbands), nor do they use long-handled hand hoes, but do the seeding. Hoeing and harvesting is done by both men and women, but using different tools. But women’s harvest are mainly for family food needs and indispensable for family nutritional balance, while men’s harvests are for cash. Thus, while men’s land plots are monoculture crops, women’s land plots have varied crops: millet and sorghum for family consumption, groundnut and cowpea for market sales in the form of peanut oil and cowpea biscuits or fritters, and varied aromatic plants and horticultural products used as food condiment.

Gender roles in the agricultural economy also vary in terms of age. The older the woman, the more they produce. And the higher their rank (1st, 2nd or 3rd wife, for example), the more advantages they have for production (grandchildren’s manual labor, husband’s contribution of animal traction.

Horticulture is distinctly gendered, as it is mainly practiced by men, as it is an activity that requires strength (for irrigation) and intensive labor. However, it is an increasingly difficult activity to practice in view of increasing difficulties in accessing water for irrigation.

**B.2. Farmer Attitudes and Behaviors**

A preliminary and subjective analysis of the attitudes and behaviors of farmers reveals a generally victimized attitude (passive dependence on others – God, the Government, donors, those who have money - to effect change), with pockets of reactiveness (react to problems, avoid change). Tables 5-6 in Annex 3 provide a bird’s eye view of farmer attitudes and behaviors and their scope and spread in the area.

***B..2.a. The past as a measuring stick***

Following the Kountché years (1974-1987 President), during which farmers in the Sia Kouanza area benefitted from the impetus of the Nigerien Rural Code’s participatory approach to land conflict and agricultural development, and what farmers consider a total abandonment of their area and “abdication” on the Government’s part with respect to their needs and potentials, rain fed agriculture, *noma*, has made a come-back as their only guarantee of an equilibrium between humankind and Nature that has in the past 10 years been eroded by a combination of the impact of climate change, shrinking land (rather than a perception of increased population), and partisan politics.

Focus groups with adult men farmers included a specific discussion on the differences between past agricultural practices and present agricultural practices. The objective was to get a sense of agricultural evolution in terms of technical and social practices. Agricultural production in the past was generally understood as a socially and economically respected activity based on a physical and social reproductive relationship with Nature; today, older farmers talk nostalgically about the “good ‘ol times” when agricultural production was sanctified and afforded social ascendancy based on a maximization of social profit generated by good harvests. In today’s context of land shortage, diminishing individual and family agricultural resources, and increasingly expensive and therefore inaccessible inputs, agriculture has become banalized and unattractive in favor of non-agricultural sources of income that can provide quick earnings. Prestige today has become more monetized than socially founded, as access and control of land is clientelistic (based on traditional and political alliances) and livestock ownership and sales predominate over yield abundance and collective sharing of harvest wealth. Wealth is today measured in money and it is shared through distribution of money.

This clientelistic and monetized attitude towards agriculture has carried over into social organization. As can be seen in Table 2 in Annex 3, few producer groups established in the past are functional today. The reason given by producers is that organizing themselves into groups has not provided any access to credit.

***B..2.b. Monetized reciprocity***

Although the majority of villages have informal women’s savings groups, these have been established to either access credit afforded by a specific project or to provide small loans amongst themselves to cover personal and family needs, but not as a specific strategy for economic development. Dominant socio-economic organization must therefore be understood in the sense of the absolute necessity of preserving traditional social cohesion through basic reciprocity – manure for food, women’s access to land in exchange for food for the family, access to land on the riverbed in exchange for a rental fee, animal fodder on credit in exchange for part of the next yield - amidst changing socio-political dynamics that have introduced monetized value that is out of reach of the average farmer and so reduces his social recognition and position (social status) vis-à-vis the ruling class (Government in the capital).

For men producers, the decline in productivity and the consequently decreasing relative value of harvests over time reflects a decline in the relative value of agriculture as a profession; the relative increase in costs and the declining consequent remuneration no longer justifies the effort to produce, other than as a means to feed the family, but not as a market-oriented activity. Discouragement is deep set among male adult farmers; the joy and enthusiasm of working the land are but souvenirs of the “good ‘ol times” still lodged in old men’s memories of community sharing of harvest surpluses. The quest of the younger generation is revenue surplus, not harvest surplus, thus creating an underlying social conflict between the relative value of agricultural production in terms of potential exchange and its monetary value in terms of market exchange that has introduced a divisor line between the older and younger male generations and between family livelihood (sustenance and nourishment) through production for survival (women’s responsibility), and family welfare (health, comfort, security, prosperity) through production for market speculation (men’s responsibility).

***B.2.c. Passive- victimized acceptance of climate change***

Farmers have always had recourse to techniques for soil and water conservation – lines of standing stones, small dikes and embankments, wind-breaking hedges – the extensiveness and rapidity of erosive phenomena have increased over the past 30 years. They are very negatively perceived by farmers, who no longer have anywhere to go, as all available land has been occupied. Combined with a feeling of abandonment and marginalization of the area, farmers have taken a victimized attitude, with pockets of reactiveness, to agricultural progress and change that works against the introduction of new techniques and technologies for adaptation to the impacts of climate and social change on agricultural development.

Although farmers are strongly aware of climate change and the interrelationship between increased population pressure and overexploitation of agricultural land – our land is “tired” and “infertile” because of repetitive harvesting without rest – they say they have no other recourse than to continue working the same land over and over using more and more chemical fertilizer, which is the only way that it will yield crops, even if today it is one harvest instead of the three they used to obtain twenty years ago. (See Table 8 in Annex 3)

***B..2.d Exchange-based coping mechanisms***

Certain traditional agricultural practices have been recovered and are reinforced as the only possible solution: negotiated agreement with Peul transhumance herders to graze on crop land after harvesting to provide organic fertilizer, in exchange for a part of the next harvest yield; rental of space by the river for paddy-rice production; manual clearing of invasive weeds; cultivation of “poor millet” or barley, and the abandonment of crops like corn and sorghum in favor of rice because of invasive and recurrent flooding. Off-season farming, particularly horticulture, is considered a financial complement rather than a nutritional complement, except in cases of specific products like okra, hot red or green pepper, tomato and dried onion, which are used as condiments.

Despite the introduction of modern agricultural inputs (improved seeds, chemical fertilizer, pesticides and herbicides), associated with the bold policy introduced by the Rural Code in 1993, which aimed to transform agricultural economics through improved efficiency based on a participative approach and whose guiding principles were integrated into the 2003 Rural Development Strategy, farmers in general did not adapt to the inherent technical innovations that had to accompany those inputs. However, because civil society did not exist in an organized form and because the majority of farmers were illiterate, those principles were never understood, much less adopted, at the grassroots level. Awareness raising campaigns have therefore been ineffective and small holders have continued being prudent in the face of innovation.

***B.2.e. Expectant resistance to change***

The generalized attitude today is the same as it was twenty years ago: in the face of change, the farmer takes an attitude of measured expectation based on great prudence dictated by risk adversity arising from the only reference that exists: decreasing agricultural productivity. Farmers therefore empirically and intuitively evaluate change by anticipation on the basis of an analogical process that opposes their experience to outside expertise. Small holders cannot afford to invest time and effort in doing things differently unless it is proven beforehand that it will work to improve the value, rather than the volume, of their output. In Niger, there is no compensation system for bad harvests resulting from a poorly adapted or mastered technique. So the risk inherent in using something new or doing something in a new way is generally perceived as too high, especially based on past experiences that the real possibility of crop diversification is limited because Government food security policies privilege one or two main staple food crops in detriment of the development of full agricultural potential, because the immense majority of small and poor smallholders cannot access any credit, which in any case is too expensive, and because the technologies introduced are poorly adapted to their needs.

The resistance to change is reinforced by the socio-psychological processes that combine the “collective” and “affective” nature of a traditionally rooted society that seeks to protect itself from the threat of dislocation and exclusion. Social mores and rules define individual and community behaviors along age and gender lines. The rule of non-contradiction and non-disclosure of traditions and customs to an “outsider” can be sanctioned. Traditional social solidarity to a great extent determines village life, such that there is an inverse relationship between community spirit and community development based on economic expansion. This can, to a great extent, explain the observed static and even involutionary sensitivity towards gender, despite two decades of gender-focused development aid projects targeting women’s empowerment: instead of progressing towards a shared approach to development, women have been relegated to childbearing and family responsibility for family food and nutritional expenses. At the same time, contrary to other West African countries like Senegal and Guinea Conakry, those considered “old” (over 60 and other than the village chief) have no recognized community value as “wise men and women”, other than as the village land’s spiritual and cultural repository, and have been totally marginalized from economic and community life. As the complexity of economic growth increases, community spirit becomes less intense and traditional solidarity ties become weaker. This is why any intent to introduce new techniques and technologies must be preceded by a well-planned awareness raising campaign.

However, as can be seen in Table 5 of Annex 3, there is an underlying and incipient attitude of planning towards the future, among men, women and youth. This provides the greatest window of opportunity for Compact development in this area, as it evidences a motivation to look for different kinds of solutions to decades-long physical and social degradation of agriculture, as well as an openness to innovative techniques, such as vertical horticultural production (a simplified type of hydroponics), integrated poultry or fish and horticultural production and integrated rice and fish production. These possible solutions were explored in all adult male producer focus groups and sparked enormous interest, especially among older men (over the age of 55), who evidenced increasing motivation to try these innovative techniques and emphatically asked for training to learn how the new techniques involved. Among women’s groups, interest in innovation was specific to savings groups organization and management and to expansion into horticulture. Among youths, interest in innovation was oriented towards horticulture, added-value processing and non-farming income generating activities.

It was surprising to discover the reactive social structures and dynamics, as the expectations, based on the local MCC’s team “preview” of the area, it was expected that things were different from Konni and that people would be more open and active. The total opposite was evidenced through focus group discussions, especially in relation to women’s situation. Youths had more or less the same constraints as those in Konni: no access to inputs or information, no support, no right to speak before their elders.

***B.2.f. A nascent planning attitude***

Table 5 in Annex 3 reveals an absence of entrepreneurial spirit, except in two cases, where such a spirit is can at best be termed nascent. This was among youths who had foreign (i.e. to neighboring countries) travel/work experience and women who had exposure beyond their villages and/or extensive and more formal experience with savings groups. However, in the majority of villages visited (16/25 or 64%) there is a degree of planning attitude, or at least a nascent one, that points to an openness to change and new techniques/ways of doing things on the basis of defined parameters that are planned and concerted. Women, in general, are more open to market-oriented agriculture and value-addition, better organization in relation to savings groups, and more collaboration and networking, while men are more open to better producer organization, community collaboration and new agricultural techniques and youth to innovation in added-value agricultural and non-farming activities. Of special interest is that in 5 few cases (Albarkeize, Sia, Tokoye Bengou Sud, Gadantché, and Ladan Koira), men over 56-60 (who are not chiefs) were very open to discovering new ways of doing things, were eager to receive training, and were even excited about the possibility of being entrepreneurs!

It is also important to note that this planning attitude can be found in many of the villages where the women are not allowed to participate in economic life or go to market; this reveals a hidden desire for self-identity, self-improvement and empowerment. The Compact program must tread carefully here. Learning from best practices in other countries, such as Mali and Nigeria, can be very useful in defining the approach.

Indeed, the socio-cultural-psychological profile of beneficiaries in Sia Kouanza is quite different and complicated than that in Konni, where people are definitely more focused towards the market and where women in the villages (not so in the urban areas) participate in economic life. This means that the approaches to awareness raising and capacity building will be very different and must be very gender, age and sociologically sensitive. In this, sense, it is important to keep in mind the reverse discrimination that has been suffered by men, old and young, in relation to literacy training. Exclusive development focus on women's empowerment through access to literacy education and savings group development has generated reverse gender discrimination that should be addressed, especially in relation to developing and reinforcing market-orientation.

**IV.- TRAINING NEEDS ANALYSIS**

This analysis and discussion is derived from the combined results of the KAP and situational analyses

1. TRAINING NEEDS DEFINED

**A.1. Direct Beneficiary Training Needs and Priorities**

At the micro-level, analysis differentiated between farmer occupational and personal development training needs for the three direct beneficiary groups: adult male farmers, women, male youths (18-25). Occupation training needs are those related to agriculture as an occupation and are work-related. Training needs at the occupation level focus on skills required for improving agricultural productivity.

**Table 5: Beneficiary motivations and interests for training**

|  |  |  |
| --- | --- | --- |
| **Direct Beneficiary Group** | **Motivation** | **Interest** |
| Male adult farmers | Community welfare  Personal status | Technical competence for increased yields, innovative ag. practices and integrated agriculture (crops-livestock/rice-fishing)  Managerial competence for climate-adapted farming |
| Women | Consequences for family food and health needs | Technical competence for horticulture  Managerial competence for savings group development and value-addition |
| Male youth | Agency and status | Technical competence for horticulture  Managerial competence for value addition and non-farming income generating activities |

Using the same methodological approach to analysis used in the Konni Analysis Report (September 23, 2016), Table 6 below provides common training themes and skills training needs by competence area were identified across all three beneficiary groups.

**Table 6: Priority training areas and skills by level of analysis and ranking by group**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Theme** | **Competence Area** | **Skills area** | **Priority Ranking** | | |
| **Occupational level** | | | **Men** | **Women** | **Youth** |
| Production | Technical competence: Production planning, organization, management and control of factors of production | Input use and application  Water efficiency  NRM – soil fertility and erosion | 1  2  3 | 3  1  2 | 2  1  3 |
| Managerial competence: Planning, organization, management, control and evaluation of production process | Risk diagnosis, planning and management  Critical thinking  Decision making | 1  3  2 | 2  3  1 | 3  2  1 |
| Market Access | Technical competence: value chain analysis | Post-harvest planning and management  Storage techniques  Use and application of pesticides for conservation  Packing and transport | 4  2  1  3 | 3  2  1  4 | 4  2  1  3 |
| Managerial competence: managing marketing | Quality control  Marketing planning and control  Sales records and transactions  Negotiation skills  New product development | 1  3  5  2  4 | 3  4  5  1  2 | 3  4  5  2  1 |
| Business | Technical competence: farming as a business | Functional, financial and ecological literacy  Use of ICTs  Information and Knowledge Management | 1  3  2 | 1  3  2 | 1  2  3 |
| Managerial competence: entrepreneurship | Opportunity, strategy and planning skills  Farming economics  Innovation  Change management  Problem solving and decision making | 4  5  2  1  3 | 5  1  4  2  3 | 1  5  2  4  3 |
| Sustainability | Technical competence: NRM | Soil management  Integrated Pest Management  Agriculture for improved nutrition | 1  2  3 | 3  1  2 | 1  2  3 |
| Managerial competence: resilience | Farmer-managed regeneration Community-based NRM  Home gardens | 2  1  3 | 3  2  1 | 2  3  1 |
| **Personal Development** | | |  | | |
| Self-management | Personal organization and planning | Self-awareness/knowledge  Gender awareness/sensitivity  Personal goal-setting and achievement  Communication skills  Savings | 3  1  2  5  4 | 2  1  4  5  3 | 3  1  2  5  4 |
| Change management | Innovation | Problem solving  Interpersonal skills  Creativity  Decision making | 2  4  1  3 | 1  4  3  2 | 2  4  1  3 |

**A.2. Expressed Training Needs of Local Government Services**

Meetings were held with the general directors of local government services critical to KAP analysis. The following table includes the capacity building needs they expressed and requested be included in this report.

**Table 7: Local Government Service Capacity Building Needs**

|  |  |  |
| --- | --- | --- |
| **Government Service Area** | **Capacity gaps** | **Expressed Capacity Building Needs** |
| Genie Rural (Rural Engineering) | Limited of financial and operational resources  No access to training | Water infrastructure construction and management: best practices  River-sourced irrigation project design and management  Solar powered irrigation solutions  Water management and monitoring software  Irrigation infrastructure maintenance (to train village youths to participate in irrigation infrastructure maintenance)  Project tenders  Project management  Climate change |
| Agriculture - crops | Not enough land for increasing population, lack of financial capacity of producers, weak investment capacity.  Main difficulties in providing services: no budget, no resources | OHADA legal texts for producer sensitization  Training of new generation of Phytosanitary brigadiers Water resources management  Soil nutrition  Solar-powered technologies  Extension service agent training (see Konni Analysis Report for specific needs) |
| Agriculture - livestock | Slaughterhouse is open air and does not meet health and sanitation standards; there is no clinic – operations on animals are performed open air under a tree and it has no adequate instruments/equipment; producers are not informed/aware of benefits of available animal feed (20 tons of groundnut shells); dearth of trained personnel; no cold room; one freezer for vaccines (with frequent power outages); no computers; all agent motorcycles are broken down; agents contribute from their own salaries to ensure minimal functioning services when there are animal health epidemics. | Technical training of field agents (see Konni Analysis Report for specific needs) |

1. TRAINING METHODOLOGY AND SEQUENCING

The training sequence proposed in the Konni Analysis Report should be preceded by a village-level sensitization action workshops to address socio-cultural barriers to training and change management.

1. EXISTING PROVISION AND PARTNERS

**C.1. Donor agencies**

Although there are very few existing partners operating in the Sia Kouanza area, key development donor partner agencieshave experience Dosso region (Luxdev) and in Gaya (Swiss Contact) with successful best practices and on-going programs that can provide valuable support, guidance and synergetic collaboration with the Compact training program. Both work with the Ministry of Technical and Vocational Training, as the lead Government partner.

Luxdev has extensive experience in developing practical agricultural production training modules for specific products (See Annex 4A). Its training programs focus on rural development and provide a walkway between technical and vocational capacity building and market demand. Its current programs are focused on unschooled youth or school drop outs through FAFPCA’s apprenticeship programs and an emphasis on occupational job market insertion. It works closely with the Ministry of Vocational and Technical Training Literacy training is not integrated into technical or vocational training and provides support at regional level through a Regional Committee that includes all relevant stakeholders.

Once students have received functional literacy training, they continue on for professional training in one of three programs:

1. Apprenticeship program, with a 4-month duration + specific occupational modules.
2. Formal vocational training, for youths with a secondary level of education, with a 2-3 year duration.
3. Short-duration occupational training, with a 45 day duration, focused on specific competencies.

The State (Ministry of Vocational and Technical training) determines the cost to be covered by participants. Luxdev provides a 100.000 cfa ($170) “training check”.

Swiss Contact has a Vocational Training Center in Gaya, under the institutional support of FAFPCA and with agreements with the Gaya Artisans Bureau of the communal artisans network (for technical and financial collaboration) and the Gaya Artisans Federal Department (Learning Management Committee) and a contract with a local NGO for functional literacy training (2-hours/week, 3-month program), which is an integral part of vocational training programs. The FAFPCA center has four programs:

(1) Dual or alternating apprenticeship learning program for 14-25 year olds who work as apprentices in sub-sectors that respond to market demand: sewing, motorcycle mechanics, car mechanics, carpentry and metal construction. Programs are 12-18 months and take a competency-based approach. Students must commit to taking literacy classes. It includes a sub-program for technical reinforcement training of artisans that employ the apprentices. Swiss Contact covers the Artisans Federation operating expenses. The Federation provides trainers and submits a monthly invoice to Swiss Contact, who also covers costs of teaching materials. There is a joint evaluation every three months.

(2) Professional development for youths 17-30 years of age who are employed while providing reinforcing technical training for workshop owners in new technologies.

(3) Short-duration vocational training in specific trades (cell-phone repair, cosmetics, textile dyeing, and value-chain focused agricultural processing of groundnut, cowpea and sesame) for 14-30 year olds for unemployed youths in collaboration with the Ministry of Vocational and Technical Training’s Youth Orientation Platform, who provides a walkway into the labor market by providing support, guidance and orientation for business plan preparation and financing (with a 5% beneficiary contribution). Suisse Contact has a specific collaboration agreement with the Regional Office for Commerce, who provides a 3-day training on commercialization.

(4) Occupational Training Program at commune level. This program is in its initial phase and aims to manage State Occupational Training Centers.

In addition, Swiss Contact has established an innovative Agricultural Training Center for youth (14-25) (SIFA). This is an 8 month program where students are trained in agricultural production methods and techniques at the SIFA during 4 months, including functional literacy classes, and apply their training on the family farm under 4 months of monitoring. Suisse Contact has an agreement with the Regional Office for Agriculture via communal representation to ensure student monitoring.

**C.2. Private sector partners**

In the private sector, three private companies in Gaya provide innovative initiatives that provide practical collaboration with MCC for the development of demand-sensitive, beneficiary-responsive capacity-building and training.

Geocoton Niger, a subsidiary of the Advens Group, has established a Cotton Producer’s Federation of Cooperatives in the Gaya Department of the Dosso Region, composed of 40 formalized cotton producer groups organized into communal unions in the communes of Gaya, Bengou, Bana, and Tanda. The company provides producers with seeds, fertilizer and insecticide on credit and has provided basic training in producer organization management and contract farming and has a farmer development program focused on cotton production yield increases and crop rotation and intercropping, farm modernization, revenue-generating micro-project development. It also has plans to establish a livestock feed factory and a model integrated agriculture-livestock farm to serve as a learning center for farmers. (See Annex 4B). This company can provide a practical and direct linkage between agricultural production and market development and is ready and willing to collaborate with MCC in Compact development in the areas of farmer organization development and training, market-oriented agricultural production and production contracts, and market development linkages.

The Consortium Koubeyni is a private health clinic established in Gaya by a Nigerien doctor. The clinic provides general medical services with modern equipment; it specializes in rural population health problems and diseases. It recently established an International Health Training Institute that provides training for: rural health agents, nurses and midwives, nutrition and hygiene, family planning. It has developed specific modules in the different health it specializes in. The medical doctor who set up the clinic has in-depth, specific knowledge of local health problems and medical “culture” and is ready and willing to collaborate in the design of specific training modules in health and hygiene for the Compact program, as well as collaborate in awareness raising and health outreach specific to Compact concerns.

The third private sector company is the Sunna Restaurant in Gaya. It is a professionally-run and managed local restaurant whose owner trains his own personnel. He intends to expand his business to open restaurants in Tanda and Sia, for which he will hire and train employees in the waitering and cooking occupations. He would like a collaborative relationship within the Compact project to develop functional literacy and hygiene training. (See Annex 4C)

1. TRAINING STRATEGY

In order to design, implement and monitor a Compact Training Strategy, it is recommended that a Steering Committee be established, wherein stakeholder roles are represented and roles clearly defined.

**D.1. Stakeholder Analysis**

Key Ministries/National institutions and their role in defining, implementing and monitoring a training strategy for the Niger Compact.

**Table 8: Stakeholder Roles**

|  |  |
| --- | --- |
| **Stakeholder** | **Role** |
| Executive Secretariat Ministry of Technical and Vocational Training | Chairmanship of the Compact Training Program (CTP) Steering Committee  Provide full support in the CTP implementation  Provided technical backstopping in CTP implementation  Ensured the conformity of the CTP with national policies and strategy  Contribute in the monitoring and evaluation of the CTP |
| Ministry of Agriculture | Member of the CTP steering committee  Resource institution for training activities related to agriculture and agricultural production and  livestock production and animal industries systems capacity-building  Responsible for coordination and implementation of training activities related to adaptation to climate change risks to agricultural production |
| Ministry of Hydraulics | Member of the CTP steering committee  Resource institution for activities related to water resources  Responsible for coordination and implementation of training activities related to adaptation of water resources and water sector |
| Ministry of Environment and Desertification Control | Member of the CTP steering committee  Resource institution for training activities related to natural resources management and environment preservation |

|  |  |
| --- | --- |
| **Stakeholder** | **Role** |
| Ministry of Youth and Sports | Member of the CTP steering committee  Resource institution for training activities related to youth |
| Rural Code Commission | Member of the CTP steering committee  Resource institution for awareness raising and training activities related to land management |
| Chamber of Commerce and Industry | Member of the CTP steering committee  Resource institution for training activities related to entrepreneurship  Contribute to the monitoring and evaluation of the CTP |
| National Meteorological Department | Member of the CTP steering committee  Resource institution for activities related to meteorological information design and provision through the MCC Beneficiary Engagement Platform  Responsible for coordination and implementation of activities related to meteorological information production and dissemination, and capacity building in downscaling of climatic information |
| Ministry of Finance and Economy | Member of the CTP steering committees  Training program endorsement on behalf of Niger Government  Ensure Government co-financing  Ensure monitoring of the training program outcomes in relation to national policies and strategies |
| University of Niamey | Member of the CTP Steering Committee  Technical backstopping during CTP implementation  Collaboration research activities on innovation in rainfed agriculture  Provision of training of trainers |

At the local level, it is recommended that a Consultative Committee be established:

**Table 9: Consultative Committee Members and Roles**

|  |  |
| --- | --- |
| **Stakeholder** | **Role** |
| Prefecture | Presides the Consultative Committee (CC)  Provide full support in the CTP implementation  Contribute in the monitoring and evaluation of the CTP |
| Government Gaya Department Technical Services | General Director of each service member of the CC  Provided technical backstopping in CTP implementation |
| Dosso Regional Council | Member of the CC  Ensures the conformity of the CTP with regional policies and strategy  Contributes in the monitoring and evaluation of the CTP |
| Development donor partners | Member of the CC  Participative provision of training program module design and implementation  Collaboration in training sites development  Contribute to monitoring and evaluation of the CTP |
| Private sector partners |  |

**D.2. Constraints to Technical Efficiency**

The Gaya Compact impact area is a highly populated one with an estimated 13 villages, 32 hamlets and 2 camps, with an estimated impacted population of 17,500 people within the area of project influence. Distances from the commune capital of Gaya vary from 5 – 35+ kilometers. Access roads are unpaved and many villages and hamlets are accessed with great difficulty, some only by dugout canoe during or right after the rainy season. This will seriously condition the training program calendar as well as trainer costs.

The area has a rich mix of ethnic groups (Djerma, Haousa, Peul, Dendi, Maori, Gaberawa, In addition, there are three main spoken languages in the area) each with their own language, although the two main languages spoken are Djerma and Hausa. This diversity must be taken into account in training content development, which will have to be adapted to ethnic, cultural and language specificities, as well as in trainer selection. Alignment among subject matter experts and training leaders will be major challenge when designing a training program that requires an agreed upon balance between efficiency and effectiveness. Too great a diversity in training staffing and inadequate content adaptation will inevitably diminish technical efficiency in training delivery coherence as well as for objective monitoring and evaluation.

Striking a balance between effectiveness and efficiency will require collaboration from community and local government leaders, stakeholders, instructional designers and subject matter experts. Along with designing a training program aligned with Compact strategy and program objectives, learning and development professionals will need to understand not only the Compact logical framework model and what’s important to MCC, but also the socio-cultural environment. The goal is to design a training program that allows beneficiaries to see the value associated with what they are doing and how it will make a difference to them, their families and their communities. Adapting learning style can motivate farmers to participate, but many will also want to see a direct return on their time investment, whether it’s from a productivity, livelihoods or monetary perspective.

Successful training programs in high consequence agricultural development programs such as the Compact enable trainees to take what they’ve learned and apply it directly on the field. This transfer of knowledge to real-world scenarios will require various delivery modalities (as described in the Konni Analysis Report). Experiential learning adapted to specific socio-cultural customs and practices and environmental realities will be essential when designing a training program that can meet Compact end goals. The transfer of conceptual knowledge to a practical application will be a crucial factor in the design process of a high consequence training program. Another important element in making sure training is successful is validation through certification, as well as proctored exercises where beneficiaries are graded in a real-world setting on a task they might have seen in the training process itself. Ensuring an effective training means touching on a variety of active learning options that will require adaptation to a diverse range of settings and cultural practices.

**D.3. Training Program Risks**

The principal concern when operating in a high consequence environment is managing, mitigating and eliminating risk.

***D.3.a. User acceptance***

In addition to considering the Compact program implementation strategy when designing a high consequence training program, it is critical to identify gender and generational differences within the beneficiary population to figure out what type of learning modalities to utilize in order to effectively help farmers overcome potential “on-the-job” risks. One of the most common challenges when designing a training program will be user acceptance. Many farmers may be reluctant to make the necessary changes to perform specific tasks under new or different constraints. As a result, they will fail to see the value in training and lack the openness to learn and retain vital information. Other farmers may not be comfortable or familiar with an active learning environment. Bridging the training needs of gender and generational differentiated farmer groups can make designing a training program difficult.

In an environment where risk is ever-present and failure has detrimental consequences, an effective training program ensures trainees are well equipped to handle the challenges specific to performing their occupation. The inability to execute a job-related task or activity can lead to costly mistakes and the overall misalignment to Compact goals. These risks can include a lack of compliance, a loss of physical assets or health consequences. Accordingly, training to counteract such risks must be designed proactively to address the spectrum of potential consequences. High consequence training programs make a difference with individual performance but is not limited to responding solely to personal needs and concerns, but also the ability to act with problem solving skills related to diagnostic, interpersonal and community relations, and market relations. To design an effective high consequence training program, it will be necessary to: (1) Ensure content is accurate and relevant. (2) Find a balance between effective and efficient training. (3) Consider a design that’s transferable and applicable. (4) Understand the diverse beneficiary population.

***D.3.b. Inadequate expertise***

To ensure accuracy, credibility and reliability, a successful training program requires competent subject matter experts and instructors, and credible materials. On-going progress during Compact implementation will require up-to-date content for training to be effective. All training functions will have to be updated as needed to ensure strategic programs and activities are informing beneficiaries of performance objectives and compliance standards. The need to design a program that maintains control and consistently provides the most updated material is a fundamental requirement for an effective training program. It’s pointless to design a training program if there isn’t an ongoing conversation confirming accuracy and credibility. If instructional designers create a training program that conveys a specific concept while, for example, the images are factually inaccurate, the learners and instructors can throw out the training completely.

***D.3.c. Lack of commitment and support***

The key risk to implementation of the training program is failure to gain commitment, acceptance and adequate resources from Government, key local leaders and stakeholders, beneficiaries, and the trainers themselves. Lack of support from any or all of these would mean that the Training Program is not being fully implemented and that improved performance, effectiveness and efficiency benefits will not be fully realized.

The possible causes of lack of support and the controls available include:

**Table 10: Causes and Control of Lack of Commitment and Support for Training**

|  |  |
| --- | --- |
| **Causes** | **Controls** |
| Lack of appreciation of training program management by training staff, stakeholders and GoN | Develop a project charter to set out the objectives, resources, funding and commitment (s) of training program, signed by the Ministry of Vocational and Technical Training, who can be the champion for moving issues through  Conduct awareness raising workshops Conduct specialist training programs |
| Compact training objectives not filtered down to local and beneficiary level | Ensure appropriate communication within Compact framework and dynamics |
| Resistance of beneficiaries to change past practices | Ensure appropriate communication of benefits to the commune and village level Ensure backing from the Prefect, the Mayor of Tanda and the local government services |

|  |  |
| --- | --- |
| **Causes** | **Controls** |
| Inadequate resourcing  Inadequate skills in training delivery management | Allocate adequate resources  Provide adequate training program |
| Indifference to program because not receiving feedback on program progress | Provide appropriate review and program assessment audits and report back to stakeholders |
| Training program accorded low priority status by the GoN or at local government level No clear roles | Ensure quality of training program – full trainee and trainer selection and evaluation criteria Make stakeholder responsibilities clear |

***D.3.d. Benefits of training not fully realized***

The justification for a training program lies with the performance and economic returns that it will generate. The estimation of the benefits involves predicting the future improvement in productivity, effectiveness and efficiency of agricultural practices and systems. This is a long-term forecast and it involves elements of uncertainty and risk. Failure to fully realize practical benefits may result in loss in confidence among stakeholders and beneficiaries, Compact goal management wrongly prioritized and viability of Compact training program implementation may be affected.

The possible causes and the controls available are:

**Table 11: Causes and Control of Non-Realization of Training Benefits**

|  |  |
| --- | --- |
| **Causes** | **Controls** |
| Incomplete or inaccurate baseline data | Complete data collection/valuation in relation to priority Compact impact areas Stage data capture |
| Not knowing existing beneficiary capabilities, processes, data/information | Complete status assessment on existing agricultural production and water management efficiency/effectiveness. |
| Setting unrealistic performance improvement targets | Adopt best appropriate practice and achievable timeframes/resources |
| Unrealistic assumptions, parameters used in defining training program contents and activities | Complete sensitivity analysis Pilot schemes to assess benefits achieved at early stages |
| Inappropriate/inconsistent measurement of benefits from training | Ensure consistent identification and measurement of benefits from training |
| Benefits take too long to be realized | Prioritize implementation program based on early return on training investment |
| Delay in implementation/programs not adequately resourced | Ensure adequate resourcing available Put in place MCC training program management team |

***D.3.e. Costs escalate beyond original estimates***

The total costs of the Compact training program include: the capital costs for data collection, and for content design and preparation, setting up program management processes, training trainers on benefits and details of the program, and ongoing operating costs for continuous content update and maintenance, enhancement to delivery systems and the refinement of training management and evaluation processes.

There is always a possibility of costs escalating beyond the original estimates. The possible impacts of any cost escalation include: delayed completion of program, lower levels of sophistication included in the final program delivered, deferred realization of full training management benefits.

The possible causes and the controls available are:

**Table 12: Causes and controls of possible cost escalation of training**

|  |  |
| --- | --- |
| **Causes** | **Controls** |
| Inaccurate cost assumptions and estimates in initial training program | Actual costs to be verified through initial pilot programs Estimate costs using  current contract rates and detailed estimates Ensure rates include all overhead costs |
| Cost items not fully accounted for | Ensure sub-contractors use project cost control process |
| Delay in implementation | Establish training program management team |

**V.- CONCLUSIONS AND RECOMMENDATIONS**

The term “farming systems” has come to be understood by international agencies and donors as one incorporating gender and nutritional factors into a holistic system that has led to a dynamic and evolving shift of the concept of agricultural sustainability. But in Niger, as is common throughout sub-Saharan Africa, intellectual conceptualization has not been accompanied by equal energies to ensure techniques and technologies are tested and, more importantly, adopted, nor has research and development been fine channeled for ultimate impact. Emphasis on terminology has not been accompanied by substantive change in what is being promoted, as there is no bridging between the research and development stages to ensure adoption of technologies and techniques.

One of the main objectives of sustainable agriculture is performing agricultural activities that contribute to improving livelihoods and market-oriented development without harming the environment and natural resources, as well as focusing on environmental protection as a comprehensive and global strategy for economic growth. Major barriers hampering adoption of sustainable agriculture practice among Compact beneficiary farmers include little financial returns of agriculture for farmers, low farmer knowledge with respect to sustainable agriculture, low levels of farmer education, government rules and regulations, problems with soil erosion and nutrient deficiencies, lack of water, and lack of extension agents.

The Sia Kouanza area has a wide range of productsand has the capacity and potential to expand in both volume and variety of production. It also has great potential for improved water use efficiency, small-scale irrigation and increased agricultural production through wide-spread scaling-up of appropriate sustainable land and water management practices. But it can only fulfill these promises if it is able to adapt to 21st century conditions of predicted climate variability and change and to the increasing frequency of extreme weather events.

But communities in Sia Kouanza are vulnerable and need to enhance their food security, contribute to sustainable management of natural resources and ameliorate their income. In a context marked by increased food needs, on one hand, and low yields on the other hand, the increase in cultivated land has been the main survival strategy developed by the producers (with a doubling of the areas under cultivation every 25 years), often to the detriment of soil fertility management practices, such as fallow. This profoundly affects the recovery of minerals and organic soil stocks, increasing vulnerability to wind and water erosion. In addition, overgrazing, deforestation for agriculture, uncontrolled exploitation of woodland mainly to satisfy energy needs of the population, poor practices of harvesting forest products and bushfires are all human activities that contribute to the decrease in forest cover and promote land degradation through wind and water erosion.

Climate change will exacerbate existing vulnerabilities to land degradation, floods and drought in Niger and will furthermore challenge farmers and communities to make changes to production systems and to protect natural assets. Sustainable land and water management strategies and practices can enable farmers and communities to become more resilient to climate change by increasing food production, conserving soil and water, enhancing food security and restoring productive natural resources.

Farmers are, in general, open to new approaches and techniques, but the high literacy rates, limited access to information, the decline in agricultural extension services and Government programs, and a generally negative past experience with partners for producer group establishment will require a specific capacity-building strategy for rural economic integration that includes: culturally-sensitive awareness raising campaigns about the Compact program, its activities, its objectives and stakeholder roles and responsibilities; an integrated functional, environmental and financial literacy and technical capacity training program with transversal women’s rights sub-program; and a specific rural entrepreneurship program focused on natural-resource friendly, gender-sensitive, sustainable income-generating activities.

1. RECOMMENDATIONS FOR TRAINING STRATEGY DESIGN AND IMPLEMENTATION

**A.1. Integrated and coordinated beneficiary approach**

In order to ensure the anticipated impact of Compact interventions on the agriculture and water sectors, an integrated and coordinated sectoral and cross-sectoral training approach is necessary. The Compact Training Program (CTP) should use a three-pronged approach to: (1) get Government buy-in, (2) ensure beneficiary participation and sustained performance impact, and (3) reduce the vulnerability of key stakeholders and collaborating partners to public policy governance in relation to the project implementation and benefits.

First, training programs should be customized to each beneficiary group at the community level, taking into account specific socio-economic and cultural community characteristics in order to ensure training impacts positively to increase the resilience of communities to climate change. MCC’s capacity building operating model should be adapted to Niger’s particular development and governance context. Given the wide differences in the capacity of public and private service providers in Niger in the technical and managerial fields, partners for training program implementation should be chosen very selectively, based on their capacity, and adequate technical assistance should be provided destined to be phased out over time.

It is also necessary to seek simplicity in training objectives and activities, given the educational level of beneficiaries and the implementation capacity of the existing partners which should, however, gradually increase. Also, in view of the often unforeseeable nature of developments in Niger, sufficient flexibility must be built into the design of training interventions so they can be adapted in function of how the situation evolves. Supervision and support for implementing the training activities financed should be further strengthened with enhanced participation by MCA, the Government, and the other partners involved. The length and frequency of supervision and M&E missions should be increased and lending agencies with international standing should be called upon to provide regular technical assistance commensurate with needs.

Second, local institutional capacity building at departmental and site levels should address knowledge and technical gaps that increase Compact program implementation risks and support diversification of the income of the rural poor. The strategy should be defined at a comprehensive Compact level in the form of a Compact Beneficiary Capacity Building Strategy and at a site level in the form of Community Training Development Plans. It also requires integrating performance risks into training development strategy and planning.

Local institutional capacity building specifically involves building the capacity of communes and the decentralized technical services to improve the structure and effectiveness of production chains. Training should aim at building capacity to enhance diversification of sources of rural income, paying special attention to irrigated market gardening, livestock, and off-farm income-generating activities. It should also build capacity for improved access by the rural poor to markets and reinforcement of private services, taking a cross-cutting approach based on partnerships.

Finally, knowledge and best practice gained through training programs should be shared through an Adaptation Learning Mechanism (ALM) with other Compact areas. This mechanism can be integrated into the MCC Beneficiary Engagement Platform to facilitate access and engagement by direct and indirect beneficiaries in Niger and by other Compact beneficiary countries.

The primary function of an ALM is to promote innovation and its scaling up in order to contribute to the diversification of farmer incomes. It is necessary, for example, to find innovative solutions to natural resource management, small-scale irrigation, access to land, access to markets, and strengthening the means of action of marginalized social groups, particularly women. Other pertinent fields undoubtedly merit greater attention, such as sedentary livestock raising and off-farm activities. MCC should make full use of the experience of the beneficiary-targeting approach with regard to the identification and promotion of innovations in the rural areas without, however, neglecting to capitalize on innovations and their scaling up beyond the Sia Kouanza area and the Dosso region. To that end, MCC should develop a realistic training implementation strategy to promote the up scaling of innovations produced from training and technical interventions in the field, making full use of non-lending activities.

The CTP will need to include programming guidance for training design and delivery providers, to enhance adaptation of contents and delivery methods to the agriculture and water resources sectors and to address urgent and anticipated climate change impacts. Training strategy will seek to integrate food security, health and climate change risks into training modules. Training modules will promote climate-resilient development of the agriculture and water sectors. Training results will directly contribute to the achievement of Compact goals and sustainability.

The Compact training strategy design, development and M&E unit will work with the relevant stakeholders in the mainstreaming of implementation risks into the greater Compact program strategy, particularly at the municipality level. It will strengthen monitoring capacities for farmer performance-linked changes in agricultural and water resources as a means to support the design of appropriate agricultural and water management responses. At the local level, pilot activities will seek to improve farmer training experiences thereby increasing awareness of how applied learning improved agricultural performance and adaptive capacity. Special attention will be given to the implementation of farming innovations on the ground with the participation of local communities and provincial and municipal governments.

**A.2. Participatory process**

The Compact Training Program should be defined and designed based on a participatory process. Formulation of learning objectives and training delivery structure should be based on a series of consultative meetings with various stakeholders, at national and local level, under the guidance of the Government of Niger, represented by the Ministry of Vocational and Technical Training. The key elements of this consultative process include the following: (1) An analytical stocktaking exercise of current vocational and technical training programs in relation to Compact performance goal areas to gain an overview of existing and ongoing programs as well as previous or current initiatives on agro-ecological production practices, market access, and NRM and climate resilience in Niger. This stocktaking will provide a diagnostic analysis of existing direct and indirect beneficiary knowledge, an insight into the role of agricultural production and water management-related risks in national human capital development strategies, as well as a critical analysis of Niger’s institutional landscape and identification of inadequacies and gaps in relation to CTP implementation.

**A.3. Integrated Sustainable Land and Water Management Technical Training**

Given the institutional weaknesses, socio-cultural characteristics and geographic isolation of the majority of the villages in the area, the recommended approach to technical farmer training in the Sia Kouanza is integrated Sustainable Land and Water Management (SLWM). Training should be gender and generational sensitive and focus on working with land users at the village level, starting from fields and farms to micro-catchments, and encouraging results-based farmer innovationthat builds on indigenous knowledge to protect and manage natural regeneration of trees and bushes on their farms. For example, a learn-by-doing process of on-farm protection and management of trees can both feed people, by growing “useful” trees such as *Faidherbia albida* (which produces nitrogen that improves soil fertility, and fodder for livestock), *Piliostigma reticulatum* (used for fodder), *Combretum glutinosum* (used for firewood), *Adansonia digitata* (whose leaves and fruit offer high-quality nutrition) and *Guiera senegalensis* (used for fodder), but the annual production value of the new trees can flows directly back to the farmers, either as cash or as produce.

Promotion of sustainable land management should be included in practical training activities aimed at rehabilitating fragile lands through measures for water collection and surface water conservation practices. Such training investments should build on experience and best practice gained in Tillabery, Tahoua and the Northern part of the Dosso region, which provide examples of how sustainable land management can result in increased vegetation, reduced erosion, rehabilitation and greater utilization of degraded lands, improved agricultural yields, increased forage for herds, greater availability of water, improved food security and well-being for vulnerable groups, and the reduction of poverty, among other things.

**A.4. Collaborative partnerships**

The program should seek effective partnershipswith all stakeholders (state and non-state actors, technical and financial partners, private sector, local governments, grass-roots organizations), to scale up and disseminate best practices. Special efforts should be made to integrate private sector players who complement Compact goals and can contribute post-Compact sustainability of training impacts.

**A.5. Gap bridging**

Finally, the Compact Training Program should aim to help bridge the gapsin the program’s institutional management, provision of information and farmer support, and identified farmer capacity building needs. The training program should support the coordination of Compact activities related to water access and management, agro-ecological production and management and climate change and variability, strengthening of stakeholder capacity. It should also promote integration of stakeholder and beneficiary adaptive efforts into planning processes and contribute to making climate information easily accessibility of to all end users.

1. RECOMMENDATIONS FOR COMPACT PROGRAM MANAGEMENT

The following specific recommendations address the three main problem areas in the Sia Kouanza areas that should be addressed by the Compact: (1) Resilience of food production systems and/or food insecure communities enhanced in the face of climate change; (2) Weak institutional capacity of the agricultural and water sector, including ability and capacity of information and extension services to respond to climate change, including variability; and (3) absence of a component for lessons learned and knowledge management.

**B.1. Build capacity of village level associations**

The village should be the organizational base for Compact implementation, as it is this at this level that rural activities are organized: farmer organization, production, commercialization, supply, learning and knowledge management, savings, and health and sanitation. However, because not all villages are the same size or dimensions (surface area, population, historical and cultural influence and standing, etc.) and their respective functions of production, consumption and maintenance/development (health, hygiene, education…) are varied, pilot villages should be selected for the first 18 months of the program so they can subsequently serve as models for other villages, using demonstration effects of achieved results as a motivator and best practice example for others.

Specific emphasis should be given to the establishment and/or strengthening of men’s, women’s and youth associations, with the goal of promoting aggregate increased productive capacity and marketing of produce through market-oriented training. These associations will serve as the basic denominator for accessing and distributing credit for specific agricultural/entrepreneurial projects that can improve and/or diversify productive capacity and food security. Credit should be tied to the achievement of specific performance objectives.

Group-focused access to credit will reduce the risk of beneficiary failure, through moral solidarity, and at the same time will reinforce gender and generational mainstreaming mechanisms. Costs inherent to credit management and distribution can be minimized using the village associations as a guarantor and for project monitoring. The village association is the corner stone for ensuring successful financing, but also for promoting the savings necessary to ensure repayment and return on investment.

Credit facilities should aim to develop micro and small businesses at village level focused on low-capital, low-technology equipment for agricultural production and processing, logistics and transport.

**B.2. Climate risk management capacity-building**

Climate change risks and adaptation in the agricultural and water resource sectors in the Sia Kouanza area must be integrated transversally into Compact capacity building plans and programs at both national and local level. Clearly defined strategies in line with and that reinforce Rural Development Strategy and Commune Development Strategy. Compact capacity building strategies should be based on wide-spread consultation at the local level. They should provide a practical framework and vehicle to guide the process of integrating climate change risks and adaptation into relevant agricultural and water management plans. They should also ensure that decision-makers in the agricultural and water sectors at all levels of government are systematically informed of climate change risks and the costs versus benefits of adaptation.

A knowledge platform established within the MCC Beneficiary Engagement System can be the place to facilitate this learning process. Demonstration projects at the village level can be used to test and assess adaptation measures that can be up-scaled to other areas/regions across Niger and potentially across the Sahel. They will also contribute towards increasing the resilience of currently highly vulnerable villages in Niger to climate change. These villages should be identified through a stakeholder participation process that includes consultation at national, departmental, site and village levels.

Local capacity will need to be put in place through specific training interventions deliver key results and ensure that capacity building impacts are maintained beyond the lifespan of the Compact. Demonstration measures in vulnerable villages across Niger can include: farm trials of drought/flood-resilient crop varieties and stabilization of soils in agricultural landscapes by constructing banquettes planting trees and sowing of fodder species that stabilize areas around water basins; water management techniques; and through adequate use and application of fertilizer and pesticides. Literacy programs can integrate climate change risks and appropriate adaptation measures, and a systematic mechanism to continuously inform and educate the youth should be established.

Capacity should also be developed, in partnership with the National Meteorological Department, to facilitate downscaling of seasonal weather forecasts and cell phone-based packaging of information in a manner appropriate for rural farmers to make informed farm management decisions.

**B.3. Consensual land and natural resource management[[2]](#footnote-2)**

In order to effectively tackle land and natural resources management while tackling food insecurity and environmental degradation, it is highly recommended that MCC integrate the lessons learned from the introduction of Niger’s original and groundbreaking Rural Code. It succeeded through 20 years of participatory approach, in reducing both the number of land conflicts and their violence and contributed to improving patterns of governance at the different territorial levels. (See Annex 5 for a detailed history and discussion of the virtues of the Rural Code and its relevance for Compact implementation).

## ANNEXES

1. This overall socio-economic-cultural analysis is specific to the Sia Kouanza region, and is the necessary framework/building block for analyzing training needs. [↑](#footnote-ref-1)
2. This section is based on AGTER’s educational kit on “Niger: The Rural Code”. [www.agter.asso.fr](http://www.agter.asso.fr) [↑](#footnote-ref-2)