

# Info Note

## Towards a theory-based assessment of the Climate Smart Agriculture Strategy (EASAC) for the SICA Region

*Findings analyzing changes contributing to the scaling up of the Climate Smart Agriculture (ASAC) approach in the region.*

*Sara Collazos, Fanny Howland, Jean François Le Coq*

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### Key messages

- The EASAC Theory of Change aiming at scaling climate smart agriculture in SICA region is made up of 4 main routes to achieved the desired impact: 1 policy route, 1 institutional route, 1 financing route and 1 communication route.
- Since the EASAC launch in 2017, a total of 259 changes were identified by key informants: 226 at the country level and 33 at the regional level.
- Most of the changes are concentrated in the policy route, followed by the institutional route.
- The financial route is mainly strengthened through international cooperation actors.
- No changes are observed in relation with the communication route.
- Guatemala and Costa Rica are the countries with the most changes identified by key informants.

### Context of the EASAC assessment

The Climate Change, Agriculture and Food Security (CCAFS) program aims to promote climate-smart agriculture (CSA) at scale. To this end, CCAFS aims to achieve results through changes towards a more favorable environment and policies, with the ultimate goal of impacting farmers' decisions regarding the adoption of CSA-based practices.

In Central America, the Central American Agricultural Council (CAC) with the support of CCAFS, CIAT, IICA, FAO, ECLAC and CATIE; formulated and adopted for Central American Integration System (SICA) the Climate Smart Agriculture Strategy for the SICA region (EASAC). The EASAC was launched in June 2017 by the Ministers of Agriculture of the SICA. The EASAC is today intended as a

reference for the process of creating national policies in SICA member countries (Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panamá, Belize y Dominican Republic) and for activities of international co-operation agencies.

The evaluation of the effect to date of the EASAC as a regional framework is an original case to address. It allows to generate learnings on the efficiency of promoting CCAFS through a regional policy level. Such an evaluation could contribute to the discussion on the effectiveness of CCAFS' theory of change (Jost, et al. Thornton, Schuetz, et al. 2017), its strategy of scaling up ASAC through policy support (Westermann, Thornton et al. 2015) and its participatory engagement strategy (Cramer, et al. 2018, Dinesh, et al. 2018). Finally, the outcome of the assessment is of interest to regional and national stakeholders in particular CAC executive secretariat as the products of such an assessment may be useful in developing recommendations to strengthen the implementation of EASAC in the region.

However, before the contribution of the EASAC can be determined, it is necessary to identify first what changes, aligned with the strategy objectives, effectively happened in the countries and at regional level.

### Objectives and methodology

The objective of this study is to assess what changes contributing to the scaling of CSA have been implemented in Central America (at national and regional levels) since the launch of the EASAC in 2017.

The methodology builds on Theory based assessment (Delahais and Toulemonde 2012; Lemire, et al. 2012, Maine, 2008). Theory-based approaches have been designed to provide systematic, robust approaches to understand whether the intended outcomes of an intervention have been achieved (or not), and the importance of the intervention's contribution under consideration, relative to that of other alternative causes.

The two first steps of the assessment include the development of a Theory of Change (ToC) and the identification of changes related to this ToC. These steps are crucial to, in a third step, carry out the contribution analysis (CA). This Info note shows results related to these two initial steps.

The ToC consists of making explicit and putting in causal relationships the results chain from the inputs (activities), outputs (fruit of the activities or products - in our case the EASAC), results (initial and intermediate) that are expected to happen, to the impact expected from the intervention.

To establish the EASAC ToC, we first reformulated the EASAC into a ToC starting from the policy document (CAC, 2017) and adjusting through an iterative process of consultation and validation with key actors (EASAC formulators).

Once the ToC validated, we conducted 44 semi-directed interviews with actors involved in CSA related actions or interventions at regional and national level of the 8 countries of SICA. The objective of these interviews was to understand what expected changes identified in the EASAC ToC have occurred so far, how, by whom, and what concrete effects have they had?

All changes mentioned during interviews were backed up by evidences (documents shared by the interviewees and complementary bibliographical review).

Finally, the changes were analyzed and compared across and among countries.

## Results

### 1- EASAC Theory of Change (ToC) developed and validated

The EASAC ToC is structured along four routes: policy route, institutional, financing and communication (see Figure 1). The results (or what is expected to happen through the use of the EASAC by governments, academics, international cooperation actors etc.) within each route are organized around 3 levels: regional level results (a), national level results (b) and subnational level results (c).

The changes are organized in most cases according to the level of progress of the change: formulation (direct result), implementation and/or evaluation (indirect results).

The main hypothesis underlying the **policy route** is that through regional level formulation of CSA policies, the formulation and implementation of CSA policies at the national level will be boosted. Through policy formulation/adjustment (formulation of new policy or adjustment of existing one) at regional level, it is expected to foster the integration of CSA in national policy formulation/adjustment first and then in policy implementation (programs, projects).

The **institutional route** postulates that through the strengthening and articulation of actors, the design, implementation and evaluation of CSA actions will be achieved with greater outreach and relevance.

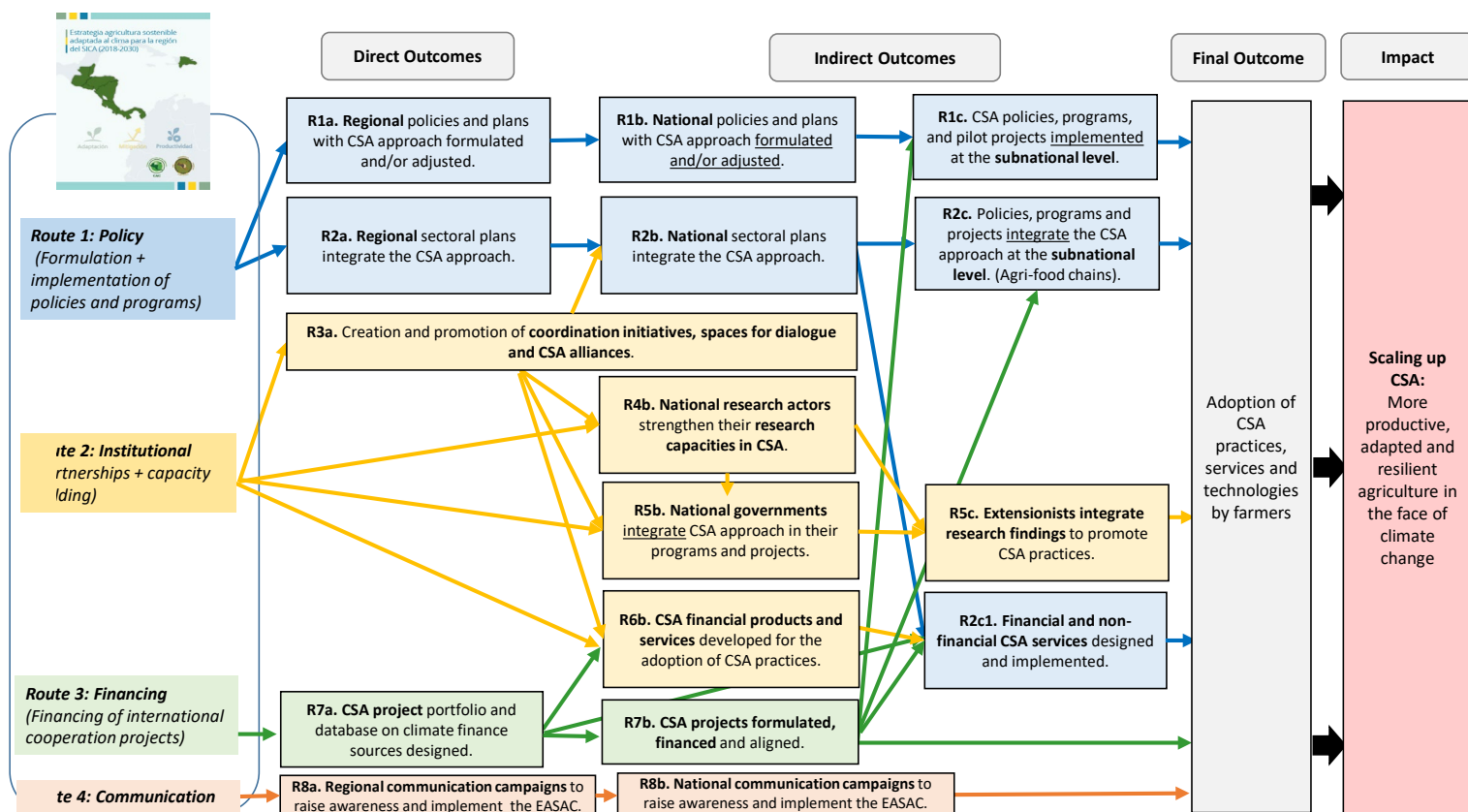


Figure 1: EASAC Theory of Change

The institutional route is aiming at fostering the creation and promotion of spaces for CSA dialogue and partnerships and the strengthening of CSA capacities of government officials, research actors and extension system actors in charge of designing, implementing and evaluating CSA policies, programs and projects.

The **financial route** aims to support and facilitate access to financial resources to foster CSA's scaling up. The outcomes intended with the financing route is the development of a portfolio of CSA projects to apply to competitive international funds or mobilize governmental ones, and an updated database on sources of climate finance.

The **communication route** is focusing on promoting regional and national communication campaigns to raise awareness and foster the implementation of the EASAC, itself.

The four routes: policy, institutional, financing and communication, set out in the EASAC ToC, aim through different actors, mechanisms and levels to a final outcome: the adoption of CSA practices, services and technologies by local farmers and thus achieve a great impact focused on a more productive, adapted and resilient agriculture in the face of climate change.

## 2 – Results by country

Changes related to the four EASAC ToC routes were identified in all 8 countries of the SICA region (see Table 1 and for more detail, Collazos et al 2021). Those are summarized below.

**Guatemala (GUA):** Guatemala stands out for a large number of changes in the policy and institutional route (respectively 35 and 12), driven by a variety of public (Ministries of agriculture and environment) and private institutions (ASORECH, CCAFS, FAO, IICA, WFP, ECLAC, GIZ, TNC). However, so far, it is experimented only one change in the financing route, which has been impulse by a regional cooperation agency (FAO).

**Costa Rica (CR):** Costa Rica also stand out for a large number of changes (49). Since 2017, Costa Rica has experienced a strong endogenous development of the policy routes toward CSA; as well as strong institutionalization concentrated in the agricultural sector, with multiple changes focusing mainly on mitigation issues (e.g. NAMAS).

**Honduras (HO):** Honduras evidences an imbalanced level of changes among the routes. Of the 37 changes identified in the country, 30 changes are concentrated in the policy route. Progress in the institutional and financing pathways is weaker. However, 4 changes have been identified in the financing pathway which has driven exclusively by regional cooperation through FAO- Central American Bank for Economic Integration (CABEI) financial cooperation focused on projects for access to climate finance in the region.

**El Salvador (ES):** El Salvador is characterized by strong policy and institutional route development, especially as the government promoted major changes in the agricultural institutional design (new CSA policies and the NAMA for livestock). However, funding route achievement are weak so far (1 change).

**Nicaragua (NI):** While there are has been no recent government-driven changes in Nicaragua, there has been notable changes coming from the support of regional cooperation and development research actors, which are concentrated in the policy route (16 changes). Despite few changes identified in the institutional routes, we can notice some changes in the funding routes (5 changes) due to cooperation activities.

**Panamá (PA):** In Panama, few changes occurred (15 in total) but they have an outstanding potential for impact, especially in the policy route, especially through the National Climate Change Plan for the Agricultural Sector of Panama (PNCCSA) and the rice NAMA. However, there is not much progress in the institutional (especially in

Outcomes	ES	GUA	HO	NI	PA	CR	RD	BE	Total in countries	CA: regional level	CA: country level	Total : CA actors
R1a: Regional policy formulated	5	3	1	0	0	2	0	0	11	15	0	15
R1b: National policy formulated	3	15	11	6	2	20	6	5	68	0	8	8
R1c: Local policy implemented	6	10	10	6	3	13	1	11	60	0	12	12
R2a: CSA regional sectoral plan formulated	0	0	0	0	0	1	0	0	1	5	1	6
R2b: CSA national sectoral plan formulated	0	5	4	1	3	2	1	0	16	0	0	0
R2c: Agri-food chains with CSA approach	1	1	1	2	0	0	0	0	5	0	2	2
R2c1: CSA financial and non-financial services designed	2	1	2	1	1	2	0	0	9	1	1	2
R3ab: CSA alliances and spaces for dialogue	1	3	0	0	1	3	0	0	8	10	0	10
R4b: CSA capacities in research	1	4	0	1	0	1	0	0	7	0	0	0
R5b: CSA capacities in government	1	3	1	1	0	0	0	0	6	0	1	1
R5c: CSA capacities in agricultural extension	1	0	0	0	0	2	0	0	3	0	0	0
R6b: CSA financial products designed	1	2	1	1	1	2	1	2	11	0	8	8
R7a: Regional CSA portfolio designed	1	1	2	2	2	1	1	0	10	1	8	9
R7b: CSA projects financed	0	1	4	3	2	0	1	0	11	1	0	1
R8a: EASAC regional campaign	0	0	0	0	0	0	0	0	0	0	0	0
R8b: EASAC national campaign	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>23</b>	<b>49</b>	<b>37</b>	<b>24</b>	<b>15</b>	<b>49</b>	<b>11</b>	<b>18</b>	<b>226</b>	<b>33</b>	<b>41</b>	<b>74</b>

Table 1: Number changes related to ToC of EASAC identified in the eight countries of SICA and at the regional level. The changes reported by regional actors (CA) and implemented in the countries are integrated in the number of changes reported in each country.

capacity building) and financing route with only 2 and 4 changes identified respectively.

**Belize (BE):** In Belize, 18 changes in total were identified. Therefore, is one of the countries among the lowest progress in the policy, institutional and financing routes towards the incorporation and scaling up of the CSA approach. However, it should be noticed that some local policy implementation is taking place.

**Dominican Republic (DR):** Dominican Republic stands out for being the country with the lowest number of changes identified (11 changes in total). However, some innovations are noticeable in the policy route, such as the NAMA Project Coffee Plus: Coffee and Climate Change in the Dominican Republic promoted by ECLAC.

### 3 – Results for regional level

As evidenced in table 1, changes have been observed at Central America regional level (CA) in the policy, institutional and financing routes (74 changes). But no change has been observed in the communication route.

The changes identified from regional level comes from a strong inter-institutional interaction between SICA (SECAC), cooperation (FAO, ECLAC, GIZ, WFP) and research (CCAFS) actors.

These changes identified from regional level actors are of two categories: the regional changes *per se* (33 changes), and the changes induced by regional level actors but occurring at the national level through specific projects (41 changes). The first categories are concentrated in the policy route (20 changes) and the institutional route (10 changes). The second category, regional induced country changes, are more balanced and concern policy route (including local policy changes, n=13) and institutional route (including financial CSA products design, n = 8), all coming from regional or multinational projects.

### 4 – Regional results synthesis

The total number of changes identified is 259 across all countries and all levels, 226 corresponding to the sum of changes in all the countries in the SICA region and the remaining 33 changes exclusively identified at the regional level (see Table 1).

**The policy route** is the strongest and most profuse as it concentrates the largest number of changes identified (193 changes). These changes correspond to the formulation, implementation, monitoring and evaluation of a diversity of laws, plans, strategies and/or policies that integrate the CSA approach at regional, national and/or subnational levels.

These changes are concentrated in Costa Rica, Guatemala, Honduras and El Salvador. El Salvador and Guatemala stand out as the countries with the greatest diversity of regional programs implemented in their territories. El Salvador has fewer changes than Guatemala, but they appears are more critical. While El Salvador has a lower number of changes in policy, their

changes are more advanced in term of implementation (go beyond policy formulation).

If the policy route has been strengthened especially through the formulation and implementation of CSA policies at regional and national levels, there is no exact correspondence between the policies formulated and those implemented. In other words, there are formulated changes that have not been implemented for various reasons (recent launch of the strategies and policies, lack of technical and financial resources, among others). Additionally, those implemented do not necessarily respond directly to the implementation of the agricultural sectoral policies formulated at the national level, but rather to regional programs that are implemented in specific projects in the countries of the region; such as EUROCLIMA+, FAO-EU FLEGT - Latin America, REDD+, RECLIMA, RELIVE, BIOCLIMA, ARAUCLIMA, AGROINNOVA, PROCAGICA, among others.

The **institutional route**, although less developed than the policy route, presents a total of 45 changes distributed in two dimensions: i) the creation and promotion of coordination initiatives, alliances and CSA dialogue spaces at regional and national levels, and ii) the strengthening of CSA capacities of governments, research actors and extension systems at national level. Most of the changes in this pathway are concentrated in result corresponding to CSA dialogue spaces and alliances with 18 changes identified mainly in Guatemala and Costa Rica. On the other hand, the CSA capacity building dimension presents 16 changes. Most of these changes are concentrated in Guatemala due to the strong institutional presence of CCAFS and the actions of the national agricultural research organization in El Salvador and Guatemala, whose impact on extension agencies has allowed the scaling up of CSA options (information and practices) at the farmers' level.

The **financing route** has been strengthened mainly through technical and financial support from international cooperation agencies with 23 changes identified at the regional and national levels. Changes related to the creation of a CSA project portfolio (R7a) at the regional level (11 changes) was mostly impulse by a regional initiative from FAO in partnership with the Central American Bank for Economic Integration (BCIE) that seeks to facilitate access to climate finance and strengthen the national capacities of the countries to create a portfolio of GEF projects in the region. Regarding a CSA projects formulated and financed at the national level (R7b), 12 changes have been identified. These changes are also originated from the above-mentioned FAO's regional initiative but focused on strengthening national capacities to access regional funding sources to implement CSA projects, and to improve national planning, research and monitoring systems on different CSA issues.

All the changes identified so far in the financing route come from cooperation at the regional level, translated into programs and/or projects adjusted at the national and/or



subnational level. This does not mean that there are no budgetary items or governmental climate finance sources for the financing of CSA policies programs and projects, but that there are no mechanisms that allow tracking and evidencing this financial route within the Ministries at the national level.

Regarding the **communication route**, which consist in the design and implementation of information campaign on the EASAC itself, no changes were observed so far.

**Considering the situations among countries of SICA**, results evidence a disparity in the level of achievements among the countries. Guatemala and Costa Rica are the countries with the highest number of changes identified; Honduras, El Salvador and Nicaragua show an average progress while Panama, the Dominican Republic and Belize are the countries with the lowest number of changes observed. However, the number of changes is only a first indicator; and the types of changes, the conditions, and the mechanisms through which these changes operate, differ from one country to another.

Indeed, Guatemala and Costa Rica have the same number of changes identified, but the dynamic of change in each country is different. In the case of Guatemala, most of the changes involved technical support and alliances created by CCAFS, while progress in Costa Rica responds more to the endogenous institutional initiative of the agricultural sector and government policies.

Regarding the changes impulsed from regional actors level, we can note a multiplicity of changes with incidence in two areas: first, in the institutional framework of the countries (support for the formulation of new policies or the modification of rules of the game) and second, in the local implementation of CSA projects (sometimes 'jumping' the national level).

Considering the orientation of changes both at regional and country levels, the emphasis of the changes has been oriented more towards mitigation than adaptation to climate change; although the CSA approach integrate both adaptation and mitigation. The agricultural sectors most prioritized have been coffee (the Coffee NAMA in Costa Rica stands out), cattle raising and some basic grains (beans, rice and corn). In addition, the predominant issues on the sector's policy agenda in the countries have been food and nutritional security (FNS), water resource sustainability, family agriculture, the low-emissions strategy (GHG), monitoring of Nationally Determined Contributions (NDCs) and forestry policy.

Finally, it is worth noting that the changes identified tends to be geographically concentrated in the Central American Dry Corridor, although the aim of the intervention is to expand the scope of these measures to other areas of the region.

## Conclusions and perspectives

Although the EASAC was launched only 3 year ago, in 2017, many changes in policy, institution and funding have occurred in the countries of SICA and at the regional level to date, attesting of a great dynamic toward CSA scaling in the region.

While there is have been a great diversity of changes in each of the three EASAC ToC routes, their development has been uneven. The policy route has been the most strengthened during the last 3 years (especially in term of policy formulation). However, the CSA approach has yet to be incorporated further into the planning, research, monitoring and evaluation processes of the agricultural sector at both the regional and national levels.

Regarding the institutional route, there has been positive changes in alliances building and strengthening, in capacity building for researchers, government civil servants, and extension worker, and in financial services design, through the design of programs, mainly supported by regional cooperation. However, there is a gap between countries in the creation and diversification of coordination initiatives, alliances and spaces for dialogue for the promotion and follow-up of the CSA approach. Moreover, there is a lack of institutionalization of the programs for research actors, public officials and extensionists to strengthen their capacities to formulate and implement CSA practices, services and technologies.

Even though there are advances in the financing route, some aspects pointed out in the EASAC are still missing or are partly implemented. A consolidated portfolio of CSA projects and an updated database on sources of climate financing need to be consolidated. Besides, more work must be done on the creation of alliances to promote financial services and, to consolidate a common agenda of CSA climate action in Central America.

While these first results of the theory based assessment of the EASAC enable to generate a big picture of the results achieved so far (in 2020) in line with scaling CSA in the region, a rigorous and systematic analysis must be conducted to assess the degree of contribution of the EASAC and their most preeminent actors to these identified changes.

## Recommended Reading

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**Sara Collazos** ([S.Collazos@cgiar.org](mailto:S.Collazos@cgiar.org)) is junior researcher in the Alliance Bioversity and Ciat

**Fanny C. Howland** ([f.c.howland@cgiar.org](mailto:f.c.howland@cgiar.org)) is researcher in the Alliance Bioversity and Ciat, doctoral fellow in the EHESS (France).

**Jean-François Le Coq** ([jf.lecoq@cgiar.org](mailto:jf.lecoq@cgiar.org)) is PhD in agro-economy, and HdR in ecological economics, Research in Cirad, associate researcher in the Alliance Bioversity and Ciat, leader of the Flagship Program 1 (FP1) of CCAFS in Latin America.

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The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together some of the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. Visit us online at <https://ccafs.cgiar.org>.

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