

Analysis of Costa Rican Gender Science and Technology Public Policy from an ICT Sector Perspective

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Abstract— Costa Rica is trying to enhance its population wellbeing and to become an OECD country. As part of this effort, it has just concluded a three years process of active cooperation between public universities, industry, and government entities to define a set of national public policies for promoting gender equity in STEM fields. Furthermore, Costa Rican ICT industries have been unable to fill in its manpower requirements, while only less than 20% of ICT available positions are occupied by women. This paper presents an analysis, from an ICT perspective, of the public policies just developed in Costa Rica to promote gender equity in Science and Technology. The results gathered after surveying members of all ICT sectors of the society, reflect which policies should have a higher priority to try to attract more women to this sector.

Keywords—gender gap, ICT, public policy, gender equity.

I. INTRODUCTION

Costa Rica is a developing country in Latin America with an interesting mix of statistics. It has first world indexes in health, education, and literacy. It has an expanding economy based on the increase of foreign investment with flourishing industries in software development, medical equipment, and Information Technology (IT) services. On the other hand, 21% of its population falls below the poverty line (with female heads of household leading more than 75% of these). Furthermore, women's unemployment is around 15% (while male unemployment is near 7%).

At the same time, there are approximately 9.000 open positions in the Information and Communication Technology (ICT) industries that the country has been unable to fill yet, while only less than 20% of ICT employees are women. To try to close this gap, Costa Rica has just concluded a three years process of active cooperation between public universities, industry, and government entities to define a set of national public policies for promoting gender equity in Science, Technology, Engineering, and Mathematics (STEM) fields. These policies define short, medium, and long-term objectives and actions for attacking the problem.

This paper presents an analysis, from an ICT sector perspective, of the public policies just developed in Costa Rica

to promote gender equity in Science and Technology. The results gathered after surveying members of all sectors of the society, reflect which policies should have a higher priority to leverage Costa Rica's limited resources. With the provided results, a further analysis can be made to set an action plan to define concrete actions to implement the policy.

This paper is organized as follows. Section II presents a small description of the context where the research was made. Section III describes Costa Rica's public policy for gender equity in Science and Technology. Section IV shows the problem to solve and Section V describes some of the related work. Section VI defines the research design, the main objective and the used methodology and Section VII presents the results. Section VIII provides a brief analysis of the most relevant aspects discovered and finally, section IX summarizes our conclusions.

II. CONTEXT

Costa Rica is a developing nation located in Central America. With a population of over 4.4 million inhabitants (50.5% women and 49.5% men), the country exhibits several first-world indicators in education, literacy, health and life expectancy. The country main export has been throughout its history agricultural products, but over the last 25 years, an effort has been made for diversifying its exports. These efforts have created successful services and technology industries with a focus on software development, medical equipment manufacturing, and technological services. At the same time, however, over 20% of the population lives in poverty conditions, with 10% in extreme poverty conditions and 43.5% of the poor homes being led by women. Unemployment in men is about 8% while in women is approximately 13.5%.

The expansion of technology and scientific industries has created an unsatisfied demand of technical and professional of STEM careers, especially of Engineering and Computer Science graduates. Conservative estimates state that the country needs 10.000 more human resources for fulfilling the current demand of professionals in those fields. Costa Rica's principal commercial partners are the United States and the European Union.

Moreover, several efforts have been made in the last ten years to reduce and mitigate violence and discrimination against women, mainly domestic violence, sexual harassment and sexual assaults. These efforts, while partially successful, have raised awareness over a portion of the population and organizations on the importance of the gender stereotypes. These efforts, however, have lacked the necessary resources and support for having a positive impact on the nation's primary indicators. Next section presents the specific public policy plan that Costa Rica has developed to promote gender equity in Science and Technology.

III. COSTA RICA PUBLIC POLICY FOR GENDER EQUITY

The *National policy for promoting equality between men and women for the development, employment and appropriation of Science, Technology, Telecommunications, and Innovation*, for the period 2018 – 2027 [1], defines key aspects for the coordination of efforts, both public and private, for the reduction of the gap of women's participation in STEM fields. The policy defines strategic axes of action, its specific objectives and the strategic actions for each objective. It also describes the primary indicators, goals and evaluation procedures for each defined objective and its strategic actions.

The development of the policy was done following the Triple Helix approach. This approach was initially proposed by Etzkowitz [2] as an evolution of the traditional government-industry method for problem-solving on modern societies. The approach includes a third actor within the cooperation scheme, universities. The underlying assumption is that the potential for innovation and economic growth in a country relies heavily on the knowledge generated and transferred to society from research projects on universities. Through the development of hybrid projects between universities, industries, and government institutions, communities can try to solve day to day problems with the goal of improving the quality of life of its citizens. This policy creation process is a good example of the Triple Helix approach.

A. Policy Development

The project was executed in four phases, as shown in Figure 1, and took two years for completion. The invitations to meetings were sent from the government office and they took place in either the University of Costa Rica (UCR) or the Ministry of Science, Technology and Telecommunications of Costa Rica (MICITT). In all phases, the stakeholders of the project were mostly women, with a 10% or less participation of men. Stakeholders from all parts of the country were invited, but the majority came from the metropolitan area. The first stage was the development of activities for raising awareness about the gender gap and inequalities for women in Science and Technology in Costa Rica. The primary activity for it was hosting of the XI Iberoamerican Congress on Science, Technology, and Gender on 2016 [3]. This conference was organized by a group of numerous organizations including public universities, research institutes, and government institutions. The conference raised the awareness on the main issues and promoted a set of workshops and meetings among different actors that triggered the subsequent three phases.



Fig. 1. Steps followed for the definition of a National policy for gender equity in Science and Technology.

For phase two and three, meetings, talks, and workshops were organized. These events included different actors from the Costa Rican society, including civilians, representatives of industrial sectors, non-profit organizations, public and private universities, scientists and professionals from STEM careers, resources from several government institutions. It also included support and participation of personnel from the Ministries of Education, Science and Technology, Women Affairs, Economics, and Industry and Commerce.

The second phase focused on identifying on which fields and areas women faced unequal positions and opportunities with regards to men. The efforts focused on the three predefined scopes: education, unemployment and scientific research. A literature review was also performed searching for previous and current laws, policies or instruments from the Costa Rica government and international legislation aimed at promoting women participation.

Activities within the third phase looked for the different problems causing the inequality scenarios identified in phase two. For this, two types of workshops were done. Several stakeholders from several sectors were invited for the first set of workshops. They were asked to identify which challenges women faced on their daily activities with regards to access, inclusion, and promotion on science, technology, and generally, within Costa Rica's society. The second set of workshops was composed mostly with women, including accomplished and successful scientists and engineers that did the same exercise, to identify challenges they faced and their experiences while developing a successful career in STEM fields.

In the last phase, the definition of the public policy has done, using as an input the results from stages 2 and 3, and a ten-step process, as shown in Figure 2. First, the main areas that the policy should impact were defined as the axes of the policy. Then, based on the identified problems, a set of objectives were established. For each objective, the expected results, its indicators, and goals were set. The next step was to record the baseline for each of the defined indicators (to be able to measure the changes on them). After this, the set of resources necessary for implementing the plans and programs of the policy and the organization(s) responsible for it were agreed. Lastly, the period for executing the policy was defined, in this case, between 2018 and 2027.



Fig. 2. Steps executed for the definition of the public policy

B. Policy Content

The policy sets the following as the strategic axes of the policy:

- Attraction of women towards Science and Technology
- Training and permanence of women in Science and Technology careers.
- Promoting scientific research employment opportunities in Science and Technology.
- Appropriation of Science and Technology with a gender perspective.
- Sustainability and follow up of the policy.

For each of the strategic axis, specific objectives and strategic actions were defined as shown in Tables 1 through 5.

The first objective is focused on improving the social perception of the importance of gender equity in Science and Technology. For this, five strategic actions are defined. They include the promotion of research, academic and inter-institutional projects, and executing national programs. And finally, it also proposes to execute a targeting campaign emphasizing the advantages of a career in STEM fields.

TABLE I. AXIS 1: ATTRACTION OF WOMEN TOWARDS SCIENCE AND TECHNOLOGY. TAKEN FROM [1]

Objective 1	
<i>Contribute to improving the social perception of the importance of equal participation of women in Science and Technology in different life stages.</i>	
Strategic Actions	
1.1	Promote research projects over the gender stereotypes and barriers that prevent women participation, access, training, permanence, and employment in Science and Technology in different life stages.
1.2	Design and execute a national program that articulates national, regional and local efforts, as well as public-private partnerships, that focus on eliminating gender stereotypes and promoting equality between men and women in Science and Technology.
1.3	Articulate and promote the support programs from academic institutions towards women that want to study STEM-related careers, taking into account the diversity of their needs.
1.4	Formulate, finance and execute long-term inter-institutional projects for promoting the insertion of women in Science and Technology.
1.5	Execute a systematic marketing campaign aimed at women, their families, students, and teachers (in print and digital media) that promotes the right of women to choose their professional career freely.

The second objective aims to promote the insertion of women in technical and professional careers in STEM fields. It includes reducing the bias in admission tests to public universities, inclusion of gender criteria and indicators in career accreditation. It also proposes to create a network of cooperation between female students in STEM careers and professional

women in their fields. Lastly, it suggests executing marketing campaigns condemning any form of violence or discrimination against women.

TABLE II. AXIS 2: TRAINING AND PERMANENCE OF WOMEN IN SCIENCE AND TECHNOLOGY CAREERS. TAKEN FROM [1]

Objective 2	
<i>Promote the insertion and graduation of women in technical and professional STEM careers.</i>	
Strategic Actions	
2.1	Promote the revision and elimination of gender biases in the admission procedures of STEM careers.
2.2	Promote the elaboration and inclusion of gender criteria and indicators on accreditation requirements for technical and professional curricula in superior education institutions.
2.3	Boost the creation of affirmative actions and stimuli for education institutions, private organizations, and companies in STEM industries, like the creation of a gender equality seal for companies and institutions.
2.4	Strengthen and promote networking and exchanges between female students on STEM careers and successful female professionals in their fields for mentoring and guidance.
2.5	Develop a systematic marketing campaign focused on eliminating discrimination and violence against women in educational institutions, with an emphasis on STEM careers.

The third objective looks to create cooperation networks to create mechanisms to attack gender inequality in payments, assigned responsibilities and public financing opportunities. It includes proposals for a gender recognition system, identification of financial resources for promoting self-employment and women ventures.

TABLE III. AXIS 3: PROMOTION OF SCIENTIFIC RESEARCH EMPLOYMENT OPPORTUNITIES IN SCIENCE AND TECHNOLOGY. TAKEN FROM [1]

Objective 3	
<i>Facilitate the creation of networks to establish and apply mechanisms to eradicate gender gap in the distribution of financing, contractual procedures, remunerative and professional career in jobs related to Science and Technology, in public and private sectors.</i>	
Strategic Actions	
1.1	Establish employment mechanisms that allow to identify the personnel demand on science and technology fields, to direct the educational offer of the country and promote the access of women to occupations with quality jobs.
1.2	Promote a recognition system to companies and institutions that sponsor the parity on their organizational structure, including the decision-making positions, on the scientific and technological areas.
1.3	Develop a systematic campaign about equality between men and women on children care and domestic work, for women to develop their professional career, in science and technological fields.

Objective 3	
<i>Facilitate the creation of networks to establish and apply mechanisms to eradicate gender gap in the distribution of financing, contractual procedures, remunerative and professional career in jobs related to Science and Technology, in public and private sectors.</i>	
1.4	Identify and publish sources of financing and technical advice that are available for the creation and functioning of self-employment or women ventures that work on science and technology.

Objective four focuses on including a gender perspective in projects within all areas of research. It includes developing support mechanisms for women in leading roles and promoting affirmative actions with a gender perspective. It also aims to promote gender awareness in research projects and incentivize those whose goal is to improve the quality of life through the resolution of gender related stereotypes and issues. Finally, it proposes the articulation of efforts between public and private organizations for the divulgation of the results of the developed research projects.

TABLE IV. AXIS 4: APPROPRIATION OF SCIENCE AND TECHNOLOGY WITH A GENDER PERSPECTIVE.. TAKEN FROM [1]

Objective 4	
<i>Stimulate the appropriation of Science and Technology through the support of scientific and technical projects with a gender perspective in all the areas of human development that include active participation of women in the design and implementation of solutions for problems that affect the society.</i>	
Strategic Actions	
4.1	Establish support mechanisms for women that lead and work Science and Technology projects with a gender perspective as well as the promotion of their project results.
4.2	Promote affirmative actions for stimulating the creation of Science and Technology related work and research groups with a gender perspective (and lead by women), in both the public and the private sector.
4.3	Identify, finance, boost and promote Science and Technology research projects that aim to improve the quality of life through the resolution of gender-related problems.
4.4	Incentivize applied research projects for the creation of safe cyberspaces that reduce women's vulnerability on the Internet.
4.5	Promote the articulation of efforts between the public and private for the divulgation of the scientific and technological knowledge build from a gender perspective that helps to improve the quality of life of women in Costa Rica

Finally, the last objective defines a set of actions for creating an evaluation framework for the implementation of the policy. The document containing this gender public policy was published and open to public consultation during the first quarter of 2018.

IV. PROBLEM AND OBJECTIVES

The latest reports on Science and Technology from the Government of Costa Rica shows that only 30% of the people employed in STEM fields are women. This gender gap contrasts with the efforts done in Costa Rica since the early 90s for the diversification of economic activities and the fact that the country has a deficit on the number of available resources on STEM-related industries. The country has tried to move to an economy based on Science and Technology industries but has not been able to fulfill all the demanded positions. The proportion of women in the labor market decreases even more within the ICT sector, where for example, only 15% of Computer Science students in public universities are women.

TABLE V. AXIS 5: SUSTAINABILITY AND FOLLOW UP OF THE POLICY. TAKEN FROM [1]

Objective 5	
<i>Generate a monitoring and evaluation system that is coordinated by the mechanisms set for the execution of the policy.</i>	
Strategic Actions	
5.1	Create a high-level committee and a national technical committee that includes institutions from the technical-scientific, public, educational and private sectors, which have any incidence, interest, and responsibility on the execution of the policy, like decision-making, management and monitoring bodies.
5.2	Develop the national action plan for implementing the policy.
5.3	Produce an evaluation and monitoring model for implementing the policy.

Although the developed policy is wide and ambitious, Costa Rica has scarce economic resources for the implementation of all the proposed strategic actions. Then, a critical question is: Which actions should be done first? The answer could vary depending on feasibility, required resources, possible impact, or even easiness. Even more, priorities could vary from STEM field to STEM field, making the analysis necessary for example for ICT, sciences, or other engineering fields.

V. RELATED WORK

In Costa Rica, no other study like the one presented here has been performed, since the analyzed policy is the first nationwide effort that sets a national policy for gender equity in Science and Technology. In Latin America and Spain, an inquiry was made by reviewing the literature and contacting known researchers in gender topics in ICT to see the advances of countries within the region. For the majority of them, the gender gap in ICT gets deprioritized by other social, economic, and gender issues, like poverty, gender violence and different forms of abuse. Positively, results were obtained from some countries.

In Uruguay, an effort similar to the one described in Costa Rica is in progress [6]. The project aims to map some of the isolated efforts in the industry, universities and government to

map them into a set of public policies. This project is currently ongoing.

In Spain, some studies [4] [5] have been made that analyze the gender equity issue and possible ways to tackle it, but no national policy has been set. Research projects supported by the Europe Union have been developed, however a national policy has not been set yet.

In Chile, a policy was set for promoting gender equity in Science and Technology [7]. The policy developed by the Ministry of Science and Technology. After searching the main databases, no research was found analyzing the specific actions proposed in Chile.

In Mexico, several modifications to the Science & Technology law includes several articles that promote gender equity. Blazquez et al. [8], summarizes these changes, and analyzes them in the context of the Mexican legislation. However, nothing was found about the specific actions they implement, or analysis on them.

Lastly, Brazil has several different programs for promoting gender equity in ICT. However, Brazil's complexity and size makes it difficult to promote a national policy, or even compare the results obtained within regions of the same country.

VI. METHODOLOGY

The main objective of our research was to identify which of the defined axis and strategic actions of our *National policy for promoting equality between men and women for the development, employment and appropriation of Science, Technology, Telecommunications, and Innovation*, for the period 2018 – 2027 [1] should be implemented first within Costa Rica's ICT sector, in order to prioritize those actions that will have more impact.

To accomplish the proposed objective, a five-step methodology was followed, as shown in Figure 3. Initially, the National Policy was analyzed, in order to determine if any of the proposed objectives was not totally applicable in the ICT sector.



Fig. 3. Steps defined for the methodology of this research.

A custom survey was designed with the goal of allowing stakeholders to make their choice and rank both the specified objectives and the defined strategic actions. The survey was done using a custom-made questionnaire that was available online, from April 5th until April 19th, 2018.

As this is the first study performed on the topic and it targeted the ICT sector, the survey respondents were limited to people who are part of the ICT fields. The survey participants included both women and men, professional engineers in diverse ICT careers, academics, both teachers and students, and representatives of the government. To select them, the survey was distributed among academic and industry ICT email distribution lists that we had access to, from universities and from public and private sector companies.

The survey was divided in three sections. The first one asked the respondent to rank the five defined objectives, based on which one they considered was the most critical, or as having the most possible impact to promote gender equity in ICT. The second section asked for each of the objectives, to select which strategic action was, again, the one to likely have more impact on the problem. Lastly, each respondent was allowed to propose any other feedback with regards to the National Policy and its content. Once the survey was closed, the obtained results were compiled, and they are show in the next section.

VII. RESULTS

We show in this section the results that were obtained after running the survey through several communication channels in Costa Rica. The distribution of the survey was done through email lists, personal invites, and through a network of stakeholders in gender equity within ICT. Focus was placed in having as many professional and academy respondents.

A. Profile of survey respondents

A total of 239 respondents started the survey. From these, 57% (137) partially answered the survey and 43% (102) answered it fully. In this section we present only the results of the respondents that finished the questionnaire. Figure 4 shows the distribution of the respondents with regards to their working sector. It should be noted that almost 2/3 of them are from the private sector, following another third coming from the academic sector.

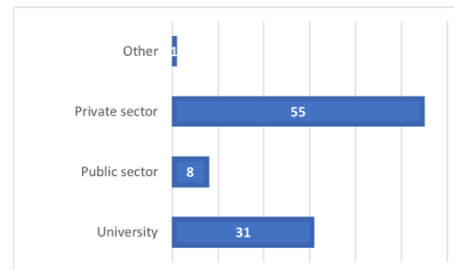


Fig. 4. Distribution of the respondents based on their current working field.

Figure 5 shows the distribution of the respondents based on their highest academic degree. From these, 11% hold a doctorate degree, 47% holds a master's degree and 35% holds a bachelor's degree. The survey was fully answered by 53 women (52%) and 48 men (47%), with one respondent not disclosing his gender. This last proportion is relevant, since it means that a higher percentage of women in the ICT sector answered the survey (since the ICT sector composition is normally 80% males and 20% females). Also, 97% of the respondents was actively working when the survey was answered.

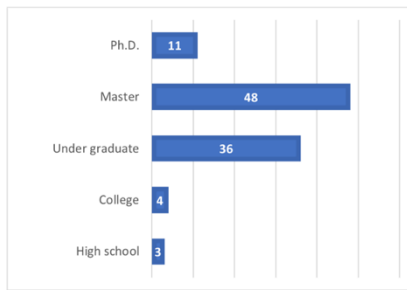


Fig. 5. Distribution of the respondents based on their highest academic degree.

B. Objectives Prioritization

The first question of the survey was for the respondent to choose which of the five defined objectives was more likely to make a difference in attacking the gender gap in ICT careers. The obtained results are shown in Figure 6, where objectives are ordered by the ranking they obtained after processing the completed surveys. It shows that improving the social perception of the importance of equal participation of women in ICT careers is seen as the most important objective with 42% of the answers. It is followed by the promotion of insertion of women in technical careers with 36%. The least selected one was, understandably, the development of an evaluation system to monitor the Policy advance.

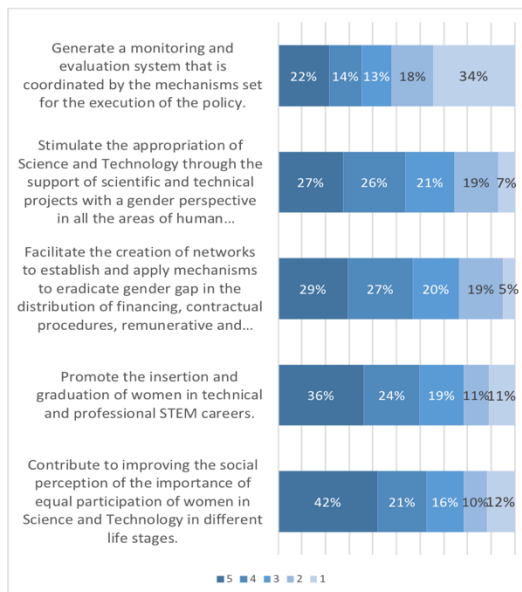


Fig. 6. Objectives ranked according to the effectiveness potential degree to attract women to the Computer Science Field or ICT.

C. Specific Actions Prioritization

The second question was divided in five parts. For each of the five objectives defined in the Policy, respondents were asked to choose which of the strategic action was more important, critical, or likely to help more in reducing the gender gap in ICT in Costa Rica. The obtained results are shown in Figures 7 to 11.

For objective one, which aims to improve the social perception of gender equality in Science and Technology, the

most selected answer, as shown in Figure 7, was to design and execute a national program that focuses on eliminating gender stereotypes and promoting gender equity. This result matches the known fact that gender stereotypes are a primary cause of women not entering ICT careers. This action got 40% of the answers.

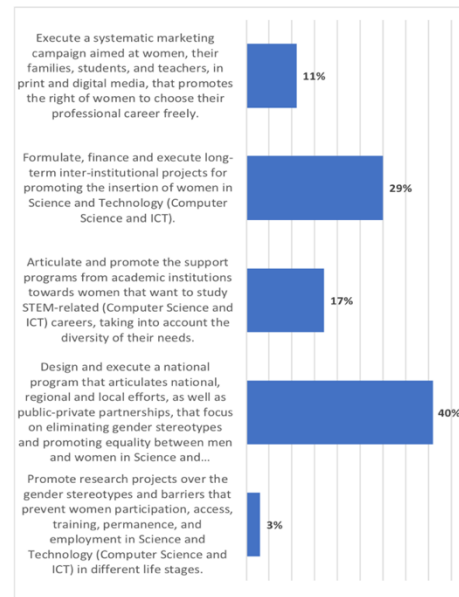


Fig. 7. Specific actions suggested for Objective 1

For objective two, which proposes the appropriation of Science and Technology through the implementation of research projects with a gender perspective, the most selected answer, as shown in Figure 8, was to promote networking and exchanges between female students on STEM careers and successful female professionals, for mentoring and guidance. This specific action received 43% of the answers.

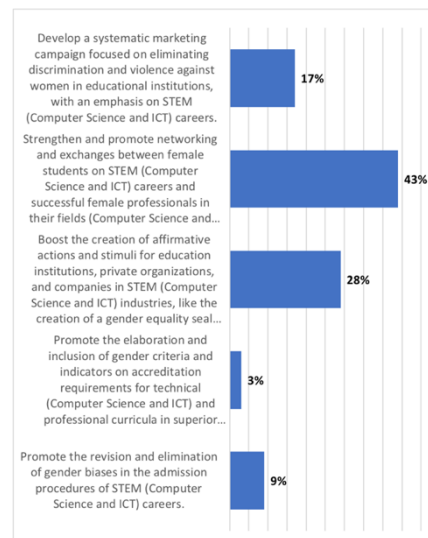


Fig. 8. Specific actions suggested for Objective 2.

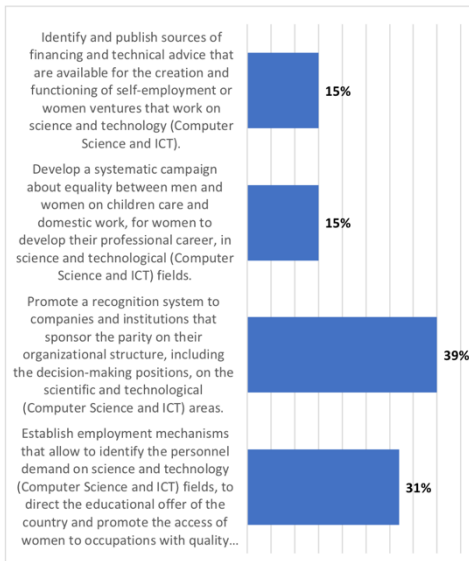


Fig. 9. Specific actions suggested for Objective 3.

For objective three, which proposes the creation of networks that will allow establishing and applying mechanisms to eradicate gender gap in the distribution of financing, contractual procedures, remunerative and professional career in jobs related to Science and Technology, in public and private sectors, as shown in Figure 9, was to promote a recognition system for companies and institutions that sponsor gender parity on their organizational structure. This specific action received 39% of the answers.

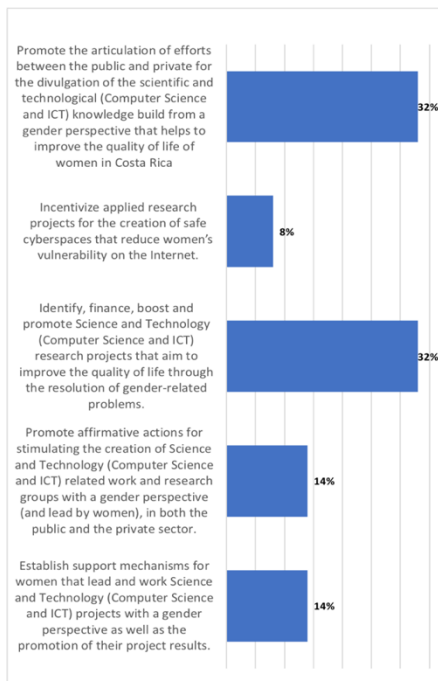


Fig. 10. Specific actions suggested for Objective 4.

Objective four, which promotes the insertion of women in STEM fields, has a tie for the most selected answer, as shown in Figure 10. First, the specific action that looks to identify, finance, boost and promote Science and Technology research

projects that aim to improve the quality of life through the resolution of gender related problems was selected by 32% of the respondents. Second, the action that promotes the articulation of efforts between the public and private sectors for the divulgation of scientific and technological knowledge, also received 32% of the answers.

Finally, for the final objective that proposes to create an evaluation model of the policy itself, the first specific action was mostly selected, as shown in Figure 11.

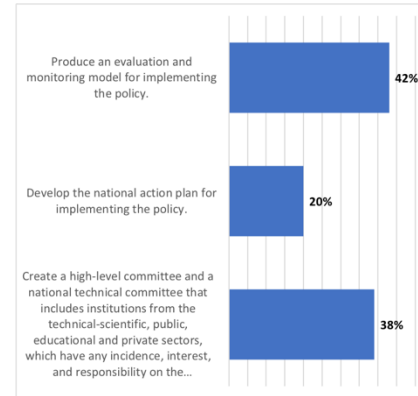


Fig. 11. Specific actions suggested for Objective 5.

D. General Comments

The last phase of the research was to analyze some general feedback obtained for respondents. Each respondent was asked if there was any other specific action that they would implement to promote gender equity within the ICT sector. Table VI shows the main answers. Suggested answers include teaching computational thinking in kindergarten, train teachers to promote gender equity and teach girls since early stages that they are fully capable of studying technology and science related careers.

TABLE VI. SUMMARY OF THE MOST FREQUENTLY MENTIONED ADDITIONAL ACTIONS SUGGESTED BY THE SURVEY RESPONDENTS

Strategic Actions
Promote the teaching of computational thinking and programming since early school stages.
Train teachers to promote gender equity in all fields since kindergarten.
Teach girls since early education stages that they are capable of studying science and technology related careers.

It is relevant to notice that a significant number of respondents expressed that the wording of the objectives and strategic actions themselves was an obstacle for the understanding and implementation of the policy. To expand on this feedback, we interviewed several researchers with experience in gender issues research and ICT. In these interviews, all of them expressed the same concern. The wording of the policy is abstract and in such high level of detail that it is complex to extract specific concrete actions to implement. More

research on this specific feedback will be performed as future work.

VIII. ANALYSIS

Table VII summarizes the specific actions that were selected by the respondents that completed the survey. These actions show some similar items:

- Promotion of public and private efforts for reducing the gender gap.
- Promote research projects which pretend improving quality of life by solving gender related issues.
- Promote efforts to eliminate gender stereotypes.

An interesting item to notice is that none of the selected objectives gathered a majority, more than half, of the answers. This supports the general notion that, although we are usually aware of the gender gap in ICT, we do not have a clear set of actions that can solve, or even reduce, the problem. It also supports the idea of the gender gap problem has multiple causes, and hence multiple possible solutions.

TABLE VII. SUMMARY OF THE MOST EFFECTIVE ACTIONS ACCORDING TO THE SURVEYED STAKEHOLDERS

Strategic Actions	% of answers
Design and execute a national program that articulates national, regional and local efforts, as well as public-private partnerships, that focus on eliminating gender stereotypes and promoting equality between men and women in Science and Technology (Computer Science and ICT).	40%
Strengthen and promote networking and exchanges between female students on STEM (Computer Science and ICT) careers and successful female professionals in their fields (Computer Science and ICT) for mentoring and guidance.	43%
Promote a recognition system to companies and institutions that sponsor the parity on their organizational structure, including the decision-making positions, on the scientific and technological (Computer Science and ICT) areas.	39%
Identify, finance, boost and promote Science and Technology (Computer Science and ICT) research projects that aim to improve the quality of life through the resolution of gender-related problems.	32%
Promote the articulation of efforts between the public and private for the divulgation of the scientific and technological (Computer Science and ICT) knowledge build from a gender perspective that helps to improve the quality of life of women in Costa Rica	32%
Produce an evaluation and monitoring model for implementing the policy.	42%

IX. CONCLUSIONS

This paper presents the results obtained after analyzing Costa Rica's national policy for promoting gender equity in Science and Technology, and its applicability within the ICT sector. The policy, that defines five objectives, and strategic actions for each one, was developed by the Ministry of Science and Technology of Costa Rica.

A survey was performed to identify the specific actions that could be implemented in Costa Rica. The survey respondents were limited to people who are part of the ICT fields and distributed through academic and industry communication channels. It was completely answered by 102 respondents from the public and private sectors, most of them having a master's degree, and 97% of them currently working within the ICT field. A future work could broaden the area of the participants, as well as the communication channels to reach them.

After analyzing the survey's answers, three key elements were identified: the promotion of public and private joint efforts to reduce the gender gap, the promotion of research projects that solve gender related problems, and the promotion of efforts to eliminate gender stereotypes.

Also, when asked for additional feedback, two elements are noticeable. First, respondents emphasized that concepts like gender equity, promotion of science and technology, and individual capabilities, should be taught since early education stages. They also expressed that the wording of the policy itself is complex and abstract, making it more difficult to identify concrete actions that can be executed for each strategic action.

Next steps within our project include:

- Work with the Ministry of Science and Technology of Costa Rica to incorporate the feedback obtained from the survey.
- Define an initial plan with specific activities to develop within the ICT community to execute concrete efforts for each of the defined strategic actions.
- Help distributing the public policy document and making people aware of its importance.

ACKNOWLEDGMENTS

The public policy analyzed in this paper has been the result of the efforts of dozens of people from the Costa Rican society. The public policy report was developed by Irene Brenes, Yarima Sandoval, Ruth Zúñiga and Joselyn Vargas with the full support of Carolina Vásquez, Minister of Science, Technology, and Telecommunications. We especially thank all the private and non-profit organizations for their interest in gender equality and their support on the definition of the nation-wide set of policies.

We also would like to thank every person that completed the survey, for their interest in promoting gender equality in Costa Rica. Lastly, this research project has been supported by the Center for Research in Information Technologies and Communications from the University of Costa Rica through the research project 834-B7- 240.

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