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REPORT ON THE DEVELOPMENT OF THE SIMULATOR TO CALCULATE CIVIL REPARATION IN CRIMES AGAINST THE PUBLIC ADMINISTRATION PRODUCT N° 55

JUNE 2015

This publication was produced for review by the United States Agency for International Development (USAID) and prepared by Tetra Tech DPK (Tt DPK), a division of ARD Inc. in Peru

USAID|PERU PRO- INTEGRIDAD

REPORT ON THE DEVELOPMENT OF THE SIMULATOR TO CALCULATE CIVIL REPARATION IN CRIMES AGAINST THE PUBLIC ADMINISTRATION PRODUCT N° 55

Project Name:	Promoting Justice and Integrity in Public Administration (Pro-Integridad)
Sponsoring Office:	USAID/Peru
Contract Number:	AID-527-C-13-00001
Contractor:	ARD Inc.
Issue Date:	JUNE 2015

JUNE 2015

The opinions issued in this publication do not necessarily reflect the point of view of US Agency for International Development or of the Government of the United States of America.

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I. INTRODUCTION

According to the USAID Pro-Integridad Project (Project) Work Plan for Year 2, implemented through contract No. AID-527-C-13-00001, the Project provided technical assistance to the Public Attorney's Office Specializing in Corruption (Attorney's) for the development of the "Manual to Support the Calculation of Civil reparation in Crimes Against the Public Administration." This activity under Objective 1, presents a method that facilitates for representatives of the State the process of calculation and justification supporting the allocation of civil damages in such cases. It also serves as a guide to train members of the Public Attorney's Office in the process. The methodology was approved by the Public Attorney's Office Specialized in Corruption on September 18, 2014.

As a second phase of this technical assistance to the institution, and within the scope of the Work Plan for year 3, Pro-Integridad provided technical assistance to the Attorney's to develop a simulator for the automate calculation of civil damages against the public administration, using the methodology indicated above and discussed in greater detail herein..

The Objective of this document is:

- To report the design, development, validation, and installation of the simulator to calculate civil damages in crimes against the public administration.
- To show the practical use of the simulator in actual completed cases provided by the Attorney's.

The production of the simulator had four phases: (1) analysis; (2) design and development; (3) validation; and (4) implementation.

The **analysis** explains the calculation methodology that creates the formulas that allocate the civil damages against the public administration.

The **design and development** (i) shows the sketch of the simulator's interfaces in two versions (desk and web), which were adjusted to the users' needs until the final version, and (ii) explains the process to build the simulator in both versions, as well as the process of functioning, operation and calculation.

Validation explains the process to approve the simulator during its development through acceptance and up to installation on the Attorney's computers.

Implementation includes installation of the simulator and training the users. As of this report, the installation is complete in the Attorney's equipment and the training and completion of the inter-active user's manual are currently underway.

These four production phases are applied for both desk and Web environments.

II. IMPACT OF THE SIMULATOR IN THE PUBLIC ATTORNEY'S OFFICE SPECIALIZED ON CORRUPTION

The simulator developed with technical assistance from the Project is a product that will contribute to the efforts made by public attorneys to achieve the values caused by the corruption of public officials. This is accomplished by automating variables that calculate civil damages based on standardized criteria. This should minimize if not eliminate the subjectivity that has existed in such cases, as in each case the backing was carried out using different criteria. Note that the simulator and the methodology on which it is based are novel, as there are no known similar tools in other Latin American countries.

The Simulator is expected to serve the attorneys for the state to better support and argue their requests for civil damages, providing requested amounts that are realistic and fair. Likewise, the use of standardized criteria helps to ensure coherence to the work of the members of the Attorney's, which further strengthen its position in representing the State's interests in court.

Furthermore, the use of standardized criteria promoted by the methodology with the simulator is expected to contribute to a greater predictability in the judicial decisions related to civil damages.

III. DEVELOPMENT OF THE SIMULATOR TO CALCULATE CIVIL DAMAGES IN CRIMES AGAINST PUBLIC ADMINISTRATION

The process to develop the software was "iterative and incremental", which means that it was built upon cycles of design, development and validation until reaching the final version.



1. ACTORS

The Development of the Simulator involved the participation of the following parties:

- Public Attorney's Office Specialized in Corruption: Dr. Vladimir Zavala, official assigned by the Attorney's to coordinate the Simulator's proposal, responsible to validate the different phases and approve the final product.
- Pro-Integridad Project (technical): Eng. Flor Torres, responsible to pose ideas for the Simulator's interface, present the finished versions to the counterpart, and conform to the Simulator and products presented.

- Technical programmer consultant: Mr. Dante Moran, responsible to implement the programming and present solution proposals. Was assisted by Mr. Francisco La Torre.
- Pro-Integridad Project (legal): Dr. Oscar Cornejo, responsible to coordinate legal advice to develop the Simulator, the meetings and workshops at the Attorney's, and conform to the products presented.
- Legal consultant: Dr. Julio Arbizu, responsible to provide legal advisory to the team in charge of the technical part of the Simulator and analyze closed cases with the methodology developed in 2014. Assisted by Mrs. Soledad Arriagada.

2. ACTIVITIES PERFORMED

The following is the Schedule of the major activities carried out in the development of the Simulator during the months of February to June 2015.

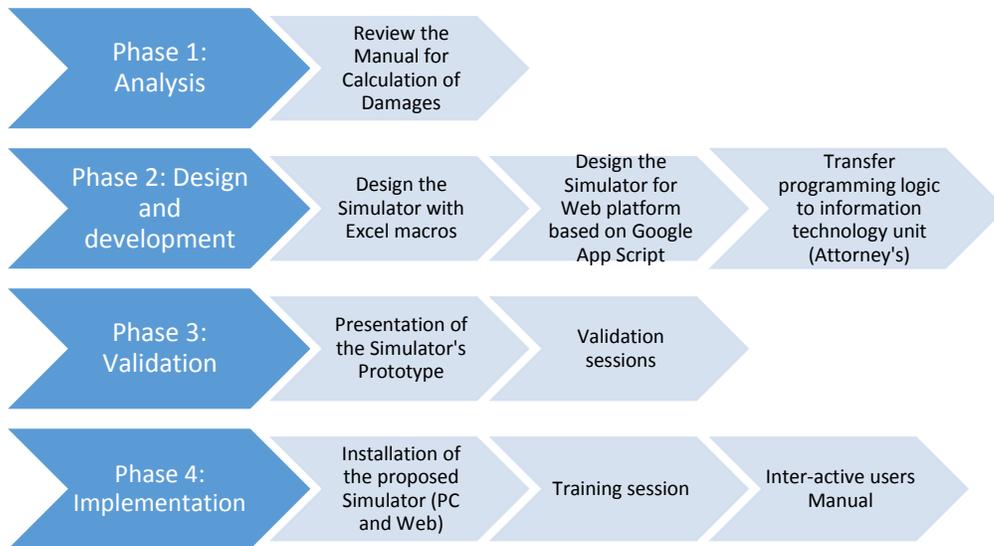
Date	Objective	Participants
02.09.2015	Presentation of the proposal of technical assistance for the Development of the Simulator to calculate civil damages.	Joel Segura, Public Attorney, Armando Plazolles, Lourdes Rivera-Santander, Flor Torres and Oscar Cornejo with Pro-Integridad.
03.04.2015, 03.12.2015 y 03.24.2015	Review the work plan, coordination guidelines and provision of cases.	Vladimir Zavala, responsible of the Attorney's observatory, Flor Torres and Oscar Cornejo with Pro-Integridad.
03.31.2015	Analysis of the calculation methodology, sketch of the initial interface of the Simulator.	Legal consultants Julio Arbizu and Soledad Arriagada, technical consultant Dante Morán, Flor Torres and Oscar Cornejo with Pro-Integridad.
04.09.2015	Presentation of the Simulator's first version.	Martín Castro, COR with USAID, Vladimir Zavala, responsible of the Attorney's observatory, Legal consultants Julio Arbizu and Soledad Arriagada, technical consultant Dante Morán, and Armando Plazolles, Lourdes Rivera-Santander, Flor Torres and Oscar Cornejo with Pro-Integridad.
04.28.2015	Meetings to validate the design of the Simulator's third version with new fields.	Vladimir Zavala, responsible of the Attorney's observatory, Flor Torres and Oscar Cornejo with Pro-Integridad.
05.08.2015	Official submission of the revised version of the Simulator to Dr. Vladimir Zavala.	Vladimir Zavala, responsible of the Attorney's observatory and Flor Torres with Pro-Integridad.
05.28.2015	Final validation workshop of the Simulator.	See annex No. 1-A de list of participants
06.02.2015	Meeting to evaluate the validation workshop and programming of the next installation, technological transfer and training events.	Vladimir Zavala, responsible of the Attorney's observatory, Flor Torres and Oscar Cornejo with Pro-Integridad.
06.04.2015	Installation of the Simulator (desk and Web) in the Anti-Corruption Public Attorney's Office.	Technical consultant Dante Moran, information technology (IT) personnel at the Attorney's and Flor Torres with Pro-Integridad.
06.11.2015	Transfer of IT programming logic of the Simulator to the IT personnel at the Specialized Public Attorney's Office.	Technical consultant Dante Moran, personnel at the Attorney's and Flor Torres with Pro-Integridad.

3. WORK PLAN

The development of the Simulator was implemented according to a work plan coordinated with the Attorney's, divided into three important sections: a) development of the Simulator, b) legal advisory from an expert, and c) training sessions (see annex 1-B).

4. SIMULATOR DEVELOPMENT PHASES

Graph of the Simulator development phases



PHASE1: ANALYSIS OF THE CALCULATION METHODOLOGY

This phase included the Review and analysis of the methodology to calculate the civil damages in crimes against public administration presented to USAID in 2014 with the assistance of Dr. Julio Arbizu, consultant, and Dr. Oscar Cornejo, member of the Project's technical team. Various work sessions were held during this phase to initially understand the legal aspects of the civil damages against the public administration.

Summary of the formulas within the methodology

The following are two main formulas used by the methodology for the calculation

1. For cases in which there is patrimonial damage

$$\text{Civil Damage} = A + (\alpha + \beta + \delta) \times A$$

Where:

A= Amount of patrimonial damage

α , β , δ = dependent variables (rank of official, media exposure and amount defrauded).

2. For cases that do Not have patrimonial damage

Of note, as a result of the analysis sessions, the methodology to calculate specific cases when “the case” does Not have patrimonial damage was updated.

$$\text{Civil Damage} = N \times (\alpha + \beta)$$

Where:

N= Level of the case

α y β = Dependent variables (rank of official, media exposure)

Level of the case	Defrauded amounts as reference for cases without patrimonial damage
A	100 thousand soles
B	80 thousand soles
C	20 thousand soles
D	5 thousand soles

PHASE 2: DESIGN AND DEVELOPMENT OF THE SIMULATOR

Both aspects, design and development (interface and construction), started together and implied a friendly and understandable interface sketch for the Simulator, which optimized its performance according to the sessions conducted with the Attorney’s personnel. It is important to note that two versions of the Simulator were developed, a desk version for the computer, and a web based version, the later with the objective to access the Simulator from any location.

On April 9, 2015, the first version of the Simulator was presented to the Attorney’s personnel, which allowed updating the calculation methodology.



Presentation of the first version of the Simulator for the Specialized Public Attorney’s Office.

The following are detailed technical aspects for each version:

A. DESK VERSION

Interface design

The six sections of the Simulator's interface form are the following (see annex 1-C first version):

1. General data, very important section that allows selecting with the checking buttons if the analyzed cases HAVE or HAVE NOT patrimonial damage and that is the starting point of the form. It also allows selecting the type of crime and the category of the case.
2. Identification data, allows entering the case number, data of the accused, and type of public institution.
3. Patrimonial damage, allows entering the emergent damage amount and loss of earnings, if any, and as output data (result) you have the total pecuniary damage.
4. Non-pecuniary damage, section that allows selection of three main variables for the calculation, which add a score that may be of maximum 12 points:
 - Variable 1: Official's Rank, to select among four values shown and goes from 1 to 4.
 - Variable 2: Media exposure, allows checking the boxes according to the casuistry analyzed, maximum score is 4.
 - Variable 3: Amount defrauded, allows selecting among four values shown and the maximum score is 4.

At the end of this section the total score of the 3 variables of non-pecuniary damage is automatically shown.

5. Fifth section is the "comments" field that allows entering relevant case data for the time of printing and the field for the lawyer's name.
6. Finally there is the section "Simulation of amount calculation", which is the Simulator's output data and shows the addition of the patrimonial and non-pecuniary damages amounts. As a result, the automatic calculation of the total amount of civil damage is shown (yellow section of the graph)

Snapshot of the final version of the Simulator – desk version

Simulador de Cálculo de Reparación Civil

Datos Generales
 Cuenta con Daño Patrimonial No cuenta con Daño Patrimonial

Delito:

Categoría del Caso:

Datos de Identificación
 Nro de Expediente: Apellidos y Nombres del procesado:

Tipo de Entidad Pública:

Daño Patrimonial
 Daño Emergente: S/. Lucro Cesante: S/. Daño Patrimonial: S/.

Daño Extrapatrimonial
 Variable 1: Rango del Funcionario: *No es funcionario publico*

Variable 2: Exposición Mediática
 a) Perifoneo en dos o más periódicos
 b) Reportaje en programa periodístico en televisión (día domingo)
 c) Notas en página interna en dos o más periódicos por más de siete días en un mes
 d) Nota en periódico por un solo día, con rebote en la web
 e) Comentario de la noticia en programas periodísticos de la tarde en TV o en programas de radio de la mañana
 f) Noticia en dos o más radios, canales de TV y/o periódicos locales que ocupa más de siete días
 g) Noticia en dos o más radios o periódicos locales

Calculo de la Exposición Mediática (puntos):

Variable 3: Monto defraudado:

Puntaje Total del Daño Extrapatrimonial: Variable 1 + Variable 2 + Variable 3

Comentarios

Abogado Responsable:

Simulación del Cálculo de Montos
 Daño Patrimonial: S/.
 Daño Extrapatrimonial: S/.
Monto de la Reparación Civil en lo Penal: S/.

Limpiar el simulador | Imprimir Cálculo | Salir

Report printing

After automatically calculating the damage, the Simulator presents an option (print button) that allows printing the report of the simulation. The template is shown as follows.

Design of the report printing issued by the Simulator

PERÚ Ministerio de Justicia y Derechos Humanos Consejo de Defensa Jurídica del Estado Procuraduría Pública Especializada en Delitos de Corrupción

CÁLCULO DE LA REPARACIÓN CIVIL EN DELITOS CONTRA LA ADMINISTRACIÓN PÚBLICA

Tipo Penal:

Expediente Nro: Categoría Caso:

Apellidos y nombres del procesado:

Tipo de Entidad Pública:

Abogado Responsable:

Daño Patrimonial: Daño Emergente:

Lucro Cesante:

Rango de Funcionario: Puntaje:

Exposición mediática: Puntaje:

Monto defraudado: Puntaje:

DAÑO NO OBSERVABLE (puntaje) 0 puntos

Cálculo con Daño Patrimonial		
MONTO DE LA REPARACIÓN CIVIL EN LO PENAL:	Daño Patrimonial	+ (puntos de Daño No Observable x Daño Patrimonial)
	S/. 0.00	+ (0 x 0.00)
	S/. 0.00	+ S/. 0.00
	S/. 12,250.00	

Cálculo sin Daño Patrimonial		
MONTO DE LA REPARACIÓN CIVIL EN LO PENAL:	Puntos de Daño No Observable x	Valor de Grado de Complejidad del Caso
	0 x	S/. 0.00
	S/. 0.00	

Comentarios:

Impreso: 2:59 hh:mm 08/05/2015 dd/mm/aaaa

Construction of the Simulator – desk version

To develop the Simulator, a form controlled through “Microsoft Excel” macros was used consisting basically of a written code in a programming language named VBA (Visual Basic for Applications).

As part of the Simulator’s construction process, several tests of the application were made regarding the interface, functionality, validation and consistency of numeric data, among others, according to the user’s requirements.

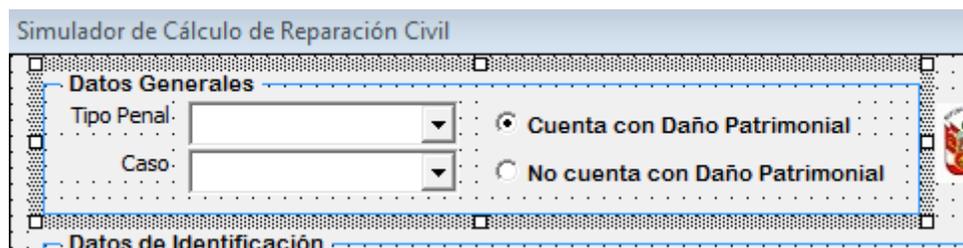
Within the programming language algorithms (formulas) were implemented related to the methodology for civil damage in order to obtain the required output data.

The following is an excerpt from the Simulator’s form Visual Basic code, specifically the General Data section: CRIMINAL TYPE. This part of the code validates the values to be deployed in the criminal type according to whether the “damage has” or “has no pecuniary damage” option was selected. See attached programming code and its graph.

Programming code

```
Private Sub cboTipoPenal_Change()  
    Dim rango1 As Range  
    Dim valor_seleccionado1 As Variant  
  
    Set rango1 = Sheets(1).Range("B37:C41")  
    If cboTipoPenal.ListIndex <> -1 Then  
        valor_seleccionado1 = cboTipoPenal.List(cboTipoPenal.ListIndex)  
        cboTipoPenal.ControlTipText =  
        Application.WorksheetFunction.VLookup(valor_seleccionado1, rango1, 2, 0)  
        Rem tipo = valor_seleccionado  
    End If
```

Section of the Simulator that belongs to the attached programming code



The screenshot shows a window titled "Simulador de Cálculo de Reparación Civil". The "Datos Generales" section contains two dropdown menus: "Tipo Penal" and "Caso". To the right of these are two radio buttons: "Cuenta con Daño Patrimonial" (which is selected) and "No cuenta con Daño Patrimonial". Below this section is the "Datos de Identificación" section.

B. WEB VERSION

Interface design

To develop the Web version, several tests and validations were planned on the desk version until reaching the final version. This was used as the basis for the interface of the web version. The following are the two interfaces to access the Simulator.

Snapshot of the presentation of the Simulator – Web version



At this window you click the “calculator” button which shows the next presentation that basically requests information in a similar way as has been explained under the point referred to the interface design for the desk version.

Window of the electronic form on the Web

The screenshot shows a web browser window with the following elements:

- Address bar: <https://89384a693cb02a369232967a3ce9e8c450aafd84.googledrive.com/host/0B0sMLpk6s9vfjQyTmZsRW9sNEtsbWZZUmtmY01BUjhQWXNSdGpGVW1sOE9ETGNuOU41WnM/simulador>
- Page Header: "Cerrar" (Close) button in the top right corner.
- Navigation Bar: A horizontal bar with the Peruvian coat of arms, the text "PERÚ", and the logos of the "Ministerio de Justicia y Derechos Humanos", "Consejo de Defensa Jurídica del Estado", and "Procuraduría Pública Especializada en Delitos de Corrupción".
- Title: "Simulador de Cálculo de Reparación Civil" (Civil Reparation Calculator Simulator).
- Section Header: "Datos Generales" (General Data) in a dark red bar.
- Form Fields:
 - Radio buttons for "Cuenta con Daño Patrimonial" (selected) and "No cuenta con Daño Patrimonial".
 - Dropdown menu for "Delito:" (Crime).
 - Dropdown menu for "Categoría del Caso:" (Case Category).
- Section Header: "Datos de Identificación" (Identification Data) in a dark red bar.
- Form Fields:
 - Text input for "Nro de expediente:" (Case Number).
 - Text input for "Apellidos y Nombres del procesado:" (Last Name and Name of the Accused).
 - Text input for "Tipo de Entidad Pública:" (Type of Public Entity).
- Section Header: "Daño extrapatrimonial" (Extrapatrimonial Damage) in a dark red bar.
- Form Field: A dropdown menu for "(Variable 1) Rango de funcionario:" (Variable 1) Range of official).

The Windows taskbar at the bottom shows various application icons and a system tray with the time "02:20 p.m." and the language "ES".

Report printing

Once the form was filled out, a button that allows a report printing of the simulation was designed, which is shown next:

Report of the simulation printing – web version

INFORME-SIMULADOR DE CALCULO DE DAÑO PATRIMONIAL	
Datos Generales	
Si existe daño patrimonial Delito : ART.382. CONCUSIÓN - El funcionario que, abusando de su cargo, OBLIGA O INDUCE a una persona a dar o prometer, para sí o para otro, un bien o un beneficio patrimonial.	
Datos de Identificación	
* Número de Expediente:12345 * Apellidos y Nombres:PROCESADO * Tipo de Entidad:ENTIDAD PUBLICA	
Daño Patrimonial	
- Daño Emergente: S/.10000 - Lucro Cesante: S/.0,00 - Daño Patrimonial: S/.10 000,00	
Daño Extrapatrimonial	
* (Variable 1) Rango del funcionario: Servidores de actividades complementarias: son aquellos que “realizan funciones de soporte y complemento, principalmente por medio de actividades operativas” (Ley Servir)	
Exposición Mediática	
<ul style="list-style-type: none">• Portada/s en dos o más periódicos.• Reportaje en programa periodístico en televisión (día domingo).• Notas en página interna en dos o más periódicos por más de siete días en un mes.• Nota en periódico por un solo día, con rebote en la web.	
* (Variable 2) Cálculo de la Exposición Mediática (puntos): 4 * (Variable 3) Monto Defraudado: 1	
(Variable 1+Variable 2+Variable 3) DAÑO OBSERVABLE (puntos): 6	
Simulador de Cálculo de Reparación Civil	
DAÑO PATRIMONIAL: S/.10 000,00 DAÑO EXTRA-PATRIMONIAL: S/.60 000,00 REPARACIÓN CIVIL: S/.70 000,00	
Otros Datos	
Abogado Responsable: Comentarios:	

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Construction of the Simulator – Web version

To develop the Simulator, free applications provided by Google on the Google Drive application, were used, that allow programming applications to use through the web. In this case, Google Apps Script was used, based on the JavaScript programming language.

The following is an excerpt of the code developed to construct the Simulator. The complete code is within the Simulator programming.

```
$scope.actualizarcomplejidad=function() {
    var complejidad=0;
    if ($scope.checked===false) {
        complejidad=$scope.complejidad;
        $scope.complejidad_formato=formato_numero(complejidad,2,""," "
");
        //$scope.complejidad=complejidad;

$scope.extrapatrimonial=formato_numero(complejidad*parseFloat($scope.danon
oobservable),2,""," ");
        $scope.reparacioncivil=$scope.extrapatrimonial;
    }
};
```

Annex N° 2 of this report has more details on the design and Development of the Simulator.

PHASE 3: VALIDATION OF THE SIMULATOR

The software development process was “iterative and incremental”, which means that various cycles of design, development and validation took place before reaching the final version.

During each session, the Attorney’s coordinator and work team performed validations of functioning, calculation and coherence according to the different cases analyzed.

Likewise, the Project team did various tests with the Simulator and requested updates and modifications from the consultants responsible for programming.

Final Simulator’s validation workshop

On May 28, 2015, the final Simulator’s validation workshop was held with 15 attendants (see annex No. 1-A, participant list). The following topics were analyzed within the workshop:

- The Simulator is 100% operative for official corruption crimes. This means that by applying the formula, the attorneys will have a civil damage amount that will sustain their request.
- For cases of “private citizens” (those who are not public officials) and HAVE patrimonial damage, the calculator works using two of the three variables (v2: media exposure; and v3: amount defrauded). In these cases variable 1 referred to official rank is void by selecting value zero.

- The Attorney's coordinator, Dr. Vladimir Zavala, thanked USAID and the Project for collaborating with the Attorney's and validated the Simulator presented to him, which will be used after its installation on the institution's computers and through the Web.

Photos validation workshop



Exhibit of the Simulator's development phases by Flor Torres, responsible of the technical component for the Project.

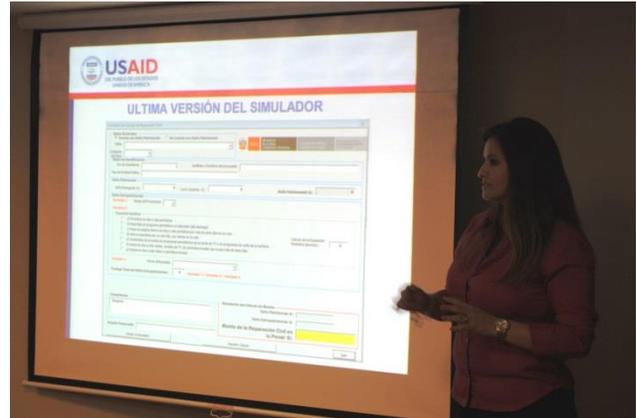


Exhibit of the Simulator's final version by Flor Torres.



Simulator's validation workshop. From left to right: Dra. Lourdes Rivera-Santander, DCOP Pro-Integridad, Dr. Armando Plazolles, COP Pro-Integridad, Dr. Vladimir Zavala, Attorney's representative, and Dr. Julio Arbizu, legal consultant to Pro-Integridad.



Anti-Corruption Attorney's Office personnel attending the event.



Dr. Vladimir Zavala and Consultant Dr. Julio Arbizu



Technical Consultants Francisco La Torre and Dante Morán, Oscar Cornejo responsible of the legal component by Pro-Integridad, and Soledad Arriagada, legal consultant.

PHASE 4: IMPLEMENTATION OF THE SIMULATOR

Installation

On June 4, 2015, the installation and set-up of the two Simulator versions (desk and web) took place by the Project and coordinating with the Public Attorney's. Mr. Cesar Larrea, institutional IT coordinator, participated and provided access for the installation of the application on 15 desktops of the Attorney's.

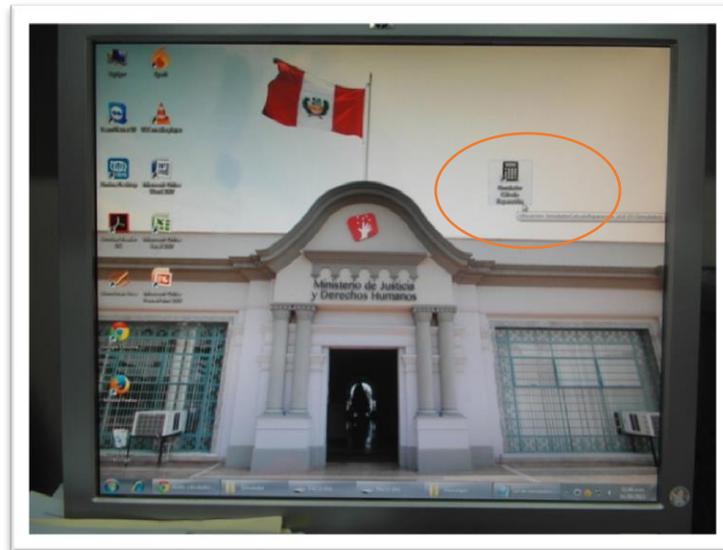
Next is a brief description of the installation process.

Installation of the “desk” version

The digital file of the desk version was provided to the IT coordinator who installed it into a shared network folder.

1. First, the Windows Archive Explorer was opened on the personal computer.
2. The network shared folder was selected to extract a copy of the archive “SimuladorCalculoReparacion_v3.5”.
3. Then, the “D:\” disk unit root was selected.
4. A new folder named “Simulator” was created.
5. The new folder was then accessed.
6. And, the Microsoft “SimuladorCalculoReparacion_v3.5” archive was copied.
7. Immediately after, a shortcut was created from the Desktop to the copied archive to visualize it on the main screen of the computer.
8. Finally, the shortcut was run to confirm the correct implementation of the Simulator.

Shortcut Icon to the Simulator on the desktop of a computer at the Anti-Corruption Attorney's Office



Installation of the “Web” version – (Storage management on Google Apps)

The Google platform was used for the “Web” version of the Simulator.

1. The electronic mail account procuraduria.minjus@gmail.com was created in Gmail.
2. Google Drive environment was entered into to accommodate the implementation of the Simulator, for which the "Simulador" folder was created. This is where all web application development stays.
3. Subsequently, the application was shared and permissions were given to the two users who were created in Gmail for use by the Attorney's.
4. The creation of users is the same as the user created in 1. The following accounts were assigned: anticorrupcion001@gmail.com and anticorrupcion002@gmail.com
5. Each email account was accessed from Gmail to run the following link in the address bar of Internet:
<https://7b133ef0ae757f0e508123ca8254416f20f374a4.googledrive.com/host/0Bzl2-NcFATWAUFhfYmtNT191dlk/>
6. The Simulator electronic form was opened, and thus confirmed the proper execution of the "Web" version.

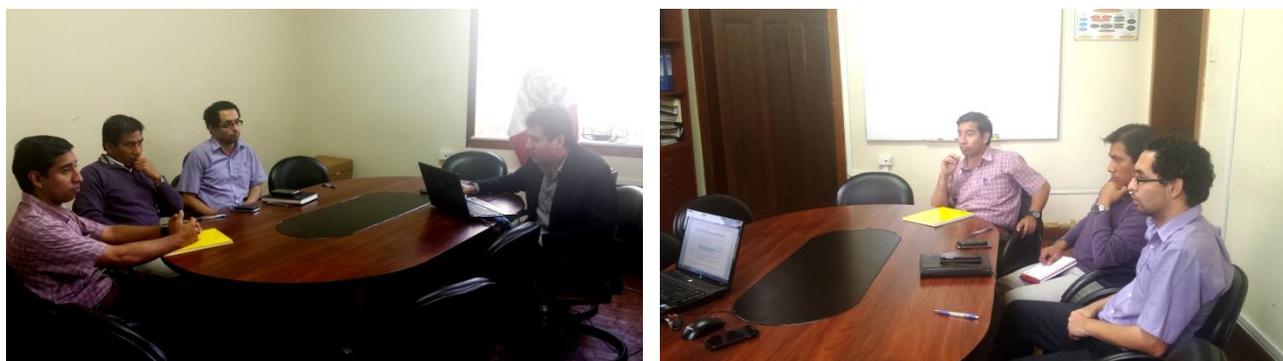
Installation and Operation

On June 4, 2015, the Project's technical team installed the Simulator (desk and web versions) on 15 computers at the Attorney's according to the memorandum that is attached as Annex 1-D of this report. The following is the detail of the equipment users on which the installation was done:

N°	Offices	Number of units
1	Office of the Public Attorney Dr. Joel Segura	1
2	Office of Assistant Attorneys	1
3	Office of National Coordination	1
4	Unit of Information Analysis	3
5	Litigation Unit N° 01	6
6	Litigation Unit N° 02	2
7	Unit of Financial Analysis	1
	Total computers with installation done	15

Transfer the programming logic to information technology experts at the Specialized Public Attorney's Office

On June 11, 2015, once the validation was over, the Project provided training on the IT programming and implementation of the two Simulator versions (Desk and Web) to Mr. César Larrea and Eng. Jenner Montenegro, coordinator of the IT unit of the Attorney's. At this point, the institution became responsible for the management of both versions of the calculation Simulator, and to maintain and update the Simulator as needed. For this reason, the Project delivered the source code that runs on a Google free platform. At the event, two training guides were provided and a deed of transfer was signed (see annex 1-E).



Session to transfer the IT programming knowledge of the Simulator. Photos: Consultant Dante Morán, Mr. César Larrea and Eng. Jenner Montenegro, representatives of the Attorney's, and Mr. Francisco La Torre, programmer.

IV. TERMINATED CASES APPLYING THE CALCULATION METHODOLOGY

To demonstrate the practical usefulness of the Simulator, closed and filed judicial cases provided by the Attorney's were analyzed using the calculation methodology developed with Project's technical assistance.

Of 15 files provided, 11 were selected and analyzed (see annex 1-F). These files have a second instance ruling, which allows applying the methodology (with the files' information) and comparing the results of the Simulator and the civil damages established through the judgments.

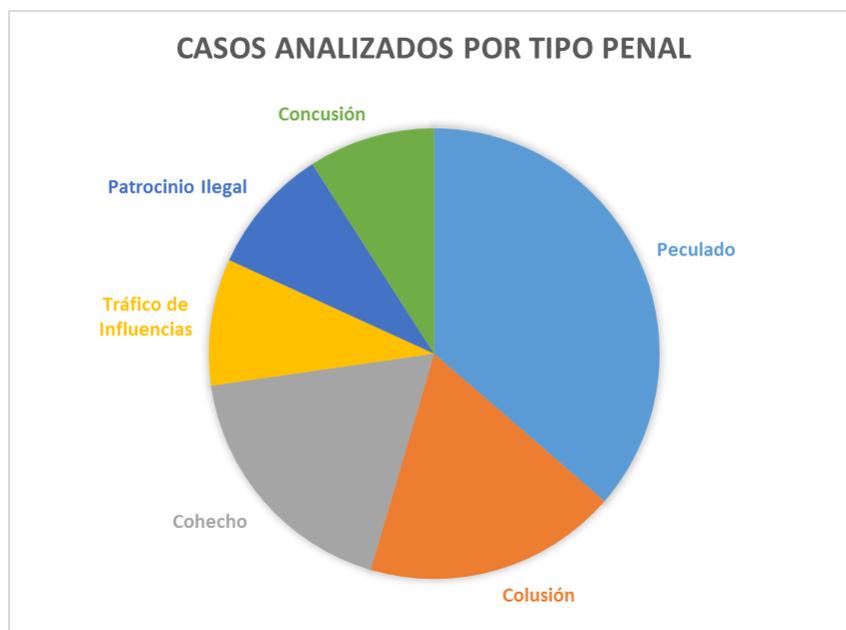


Technical meeting with the Attorney's to deliver closed cases for analysis.
Photo: Dr. Vladimir Zavala with the Attorney's, Eng. Flor Torres and Dr. Oscar Cornejo with Pro-Integridad

Cases analyzed

Of the 11 cases analyzed, most of them are due to peculation (embezzlement) (first place) and collusion (second place), as shown on the attached graph.

Cases analyzed



Source: Public Attorney's Office Specialized on Corruption, elaboration J.Arbizu.

As an example, two cases described and analyzed with the calculation methodology (manual) and using the Simulator are presented here. The detail of all the cases analyzed can be found in Annex N° 3 of this report.

Case N°1: Peculation							
<p>Case summary: Congressman has accountability adulterated operating expenses, for consumption not incurred in a restaurant for the amounts of 369.00; 428.00; 397.00 nuevos soles. Furthermore, requests reimbursement of S/.4,564.00 for the purchase of air tickets.</p> <p>The restaurant owner says that the vouchers are fake or altered and that the defendant never made the detailed consumption. As for the ticket, it had been assumed by the Parliamentary Peruvian-European League of Friendship.</p>							
Application of the methodology							
Determination of patrimonial damage			Determination of scores¹		Application of formula		
369.00	+428.00	+397.00	C	M	D	T	5,758 + (5,758 x 9)
+4,564.00 = 5,758.00			4	4	1	9	= 5,758 + 51,822
Total civil damage by the method (using the Simulator)						Total S/.57,580.00	
Civil damage by court decision						S/. 50,000.00	
Difference						S/. 7,580.00	
<p>Consideration of the consistency of the formula in the case: We consider that in this case the sentence imposed is a fair amount, given the level of the position of the sentenced and the media impact. The formula in this case casts a similar amount, which is hazardous because currently there is great variability in the amounts imposed from one case to another, from one judge to another. The method allows precisely predictability and objectivity.</p>							

¹ C: position (official rank), M: media exposure, D: amount defrauded from the State, T: total score.

Snapshot of the calculation using the Simulator for case No. 1

Datos Generales <input checked="" type="radio"/> Cuenta con Daño Patrimonial <input type="radio"/> No cuenta con Daño Patrimonial		Ministerio de Justicia y Derechos Humanos Consejo de Defensa Jurídica del Estado Procuraduría Pública Especializada en Delitos de Corrupción	
Delito: <input type="text" value="ART.387 PECULADO"/> Categoría del Caso: <input type="text"/>			
Datos de Identificación Nro de Expediente: <input type="text" value="0"/> Apellidos y Nombres del procesado: <input type="text"/> Tipo de Entidad Pública: <input type="text"/>			
Daño Patrimonial Daño Emergente: S/. <input type="text" value="5,758.00"/> Lucro Cesante: S/. <input type="text" value="0"/> Daño Patrimonial: S/. <input type="text" value="5,758.00"/>			
Daño Extrapatrimonial Variable 1 Rango del Funcionario: <input type="text" value="i"/> <i>Funcionarios comprendidos/as en el artículo 99 de la Constitución Política del Perú más los funcionarios designados a través de Resolución Suprema, Presidentes Regionales y Alcaldes Provinciales.</i> Variable 2 Exposición Mediática <input checked="" type="checkbox"/> a) Portada/s en dos o más periódicos <input checked="" type="checkbox"/> b) Reportaje en programa periodístico en televisión (día domingo) <input checked="" type="checkbox"/> c) Notas en página interna en dos o más periódicos por más de siete días en un mes <input type="checkbox"/> d) Nota en periódico por un solo día, con rebote en la web <input checked="" type="checkbox"/> e) Comentario de la noticia en programas periodísticos de la tarde en TV o en programas de radio de la mañana <input type="checkbox"/> f) Noticia en dos o más radios, canales de TV y/o periódicos locales que ocupa más de siete días <input type="checkbox"/> g) Noticia en dos o más radios o periódicos locales <div style="text-align: right; margin-top: 5px;"> Cálculo de la Exposición Mediática (puntos): <input type="text" value="4"/> </div>			
Variable 3 Monto defraudado: <input type="text" value="De 1 a 10 mil soles"/> 1 puntos			
Puntaje Total del Daño Extrapatrimonial: <input type="text" value="9"/> Variable 1 + Variable 2 + Variable 3			
Comentarios <input type="text" value="Ninguno"/>		Simulación del Cálculo de Montos Daño Patrimonial: S/. <input type="text" value="5,758.00"/> Daño Extrapatrimonial: S/. <input type="text" value="51,822.00"/> Monto de la Reparación Civil en lo Penal: S/. <input style="background-color: yellow;" type="text" value="57,580.00"/>	
Abogado Responsable: <input type="text"/>			
<input type="button" value="Limpiar el simulador"/>	<input type="button" value="Imprimir Calculo"/>	<input type="button" value="Salir"/>	

Case N° 2: Influence Peddling

Case summary: A Deputy Chief Official at the reception desk of the Police Hospital. Requests a PNP money to solve an investigation for abandonment of duties. The accused said to have influence next to a PNP general in order to (by means of a US\$1,500 payment) file away the administrative investigation against a Police for post abandonment.

Application of the methodology

Determination of patrimonial damage	Determination of scores				Application of formula
No patrimonial damage, the table is used for cases without defrauded amount.	C	M	D	T	2 x 5,000.00 = 10,000.00
	2	0	0	2	
Total civil damage by the method (using the Simulator)					Total S/.10,000.00
Civil damage by court decision					S/. 5,000.00
Difference					S/. 5,000.00

Consideration of the consistency of the formula in the case: we consider that in this case the sentence imposed is very low amount, as the influence peddling generates great damage to equality before the law and the right to access justice guaranteed by the Constitution. Therefore, we consider that a minimum amount payable is 10 000 soles.

Snapshot of the calculation using the Simulator for case No. 2

Datos Generales

Cuenta con Daño Patrimonial No cuenta con Daño Patrimonial

Delito: ART.400 TRÁFICO DE INFLUENCIAS

Categoría del Caso: D

Datos de Identificación

Nro de Expediente: 0 Apellidos y Nombres del procesado: _____

Tipo de Entidad Pública: _____



Daño Extrapatrimonial

Variable 1 Rango del Funcionario: 2 *Funcionarios de carrera: "son aquellos que ejercen la función administrativa, la supervisión y control, prestación de servicios diversos del Estado. Sus actividades se desempeñan tanto en las áreas de línea (funciones sustantivas) como de apoyo (funciones de administración interna) de las entidades públicas" (Ley Servir).*

Variable 2

Exposición Mediática

- a) Portada/s en dos o más periódicos
- b) Reportaje en programa periodístico en televisión (día domingo)
- c) Notas en página interna en dos o más periódicos por más de siete días en un mes
- d) Nota en periódico por un solo día, con rebote en la web
- e) Comentario de la noticia en programas periodísticos de la tarde en TV o en programas de radio de la mañana
- f) Noticia en dos o más radios, canales de TV y/o periódicos locales que ocupa más de siete días
- g) Noticia en dos o más radios o periódicos locales

Cálculo de la Exposición Mediática (puntos): 0

Puntaje Total del Daño Extrapatrimonial: 2 Variable 1 + Variable 2 + Variable 3

/ Usar sólo en el caso que NO EXISTA DAÑO PATRIMONIAL /

Grado de complejidad del caso: D \$/5,000.00

Comentarios: Ninguno

Abogado Responsable: _____

Simulación del Cálculo de Montos

Daño Patrimonial: S/. 0,00

Daño Extrapatrimonial: S/. 10,000.00

Monto de la Reparación Civil en lo Penal: S/. 10,000.00

Limpiar el simulador
Imprimir Cálculo
Salir

Comparison of the manual use of the methodology and using the Simulator

The following is a comparative chart referring to time and reliability of results.

TOOL	TIME USED	RELIABILITY OF THE RESULTS	COMMENTS
SIMULATOR	From 3 to 5 minutes	Does not require arithmetical check	Best score to summarize all tables in a single instrument allowed
MANUAL CALCULATION	From 5 to 10 minutes	Requires constant arithmetical check	Can generate confusion for the simultaneous use of three or four tables

Conclusions from the analysis of cases regarding the use of the methodology for calculating civil damages

- a) The methodology allows a predictable calculation from which to work the particular legal justification in each case. It certainly means an improvement on the current situation which allows no degree of predictability neither for the interests of the State or the defense of the accused.
- b) The formula is exponential, meaning that the higher is the amount of patrimonial damage, the higher the total civil damage. On the other hand, in cases with high amounts of affected assets we find they are often senior officials, for middle management officials usually do not have access to a level that allows making a costly fraud. In this sense, it is highly likely that whenever the amount defrauded the state property exceeds 100 thousand soles senior officials (rank 4 or 3) are involved.
- c) As being an exponential formula, we believe that we should think about a possible cut to prevent the final amount to be excessive and uncollectable. This was addressed in the workshop with the Attorney's, whose members were open to work with the formula and thus analyze in practice what adjustments are needed.
- d) Most of the selected cases had no media exposure, which is relevant to review, since it has been one of the most controversial variables. In this regard, we believe that when cases have media exposure the public interest cannot be ignored and the variable must remain as part of the formula.
- e) When analyzing case by case the non-pecuniary damage (associated with incalculable damage of citizens' rights, subject to governance, access to services, etc.), it becomes more evident. In this regard, we believe that the attorneys can find a number of good arguments in each case to give consistency to the final amount, since although the variables allow the attribution of a measurement, the huge non-pecuniary damage variables exceed the image and institutional trust.

V. FINAL COMMENTS

Actions performed

- The analysis, design, and development and validation of the Simulator were made in a participatory manner between the Project team and the Public Attorney's, which allowed the appropriation of this tool by the counterpart.
- The desk version of the calculation Simulator was installed on 15 computers at the Public Attorney's Office to be used by the public attorneys and lawyers.
- A user account was created on the Google Gmail platform named "procuraduria.minjus@gmail.com", for the storage of the web version of the Simulator, which will be administered by the institutional IT representatives.
- The programming logic (programming language) of the Simulator was transferred in both versions to the IT representatives at the Attorney's for its management and/or updates.

- The Project developed two versions of the calculation Simulator for civil damages (desk and web) for the Attorney's, which were validated by the institution.

Future Actions

- In July 2015 the National Congress of the Public Attorney's Office Specialized on Corruption will take place. This event brings together the members of this agency at national level. The calculation of civil damages methodology and the Simulator will be presented to the participants.
- During the same month training will be provided for the Attorney's personnel at the central headquarters in the use of the Simulator and the legal matters needed to sustain civil damages before the Judiciary and the Public Ministry (Logic and legal argumentation).
- As part of the Project's intervention in the Amazonia, two training events on the method to calculate civil damages and the use of the Simulator are being coordinated to take place in the cities of Iquitos (Loreto) and Moyobamba (San Martin) during August and September, which might incorporate other justice system operators.