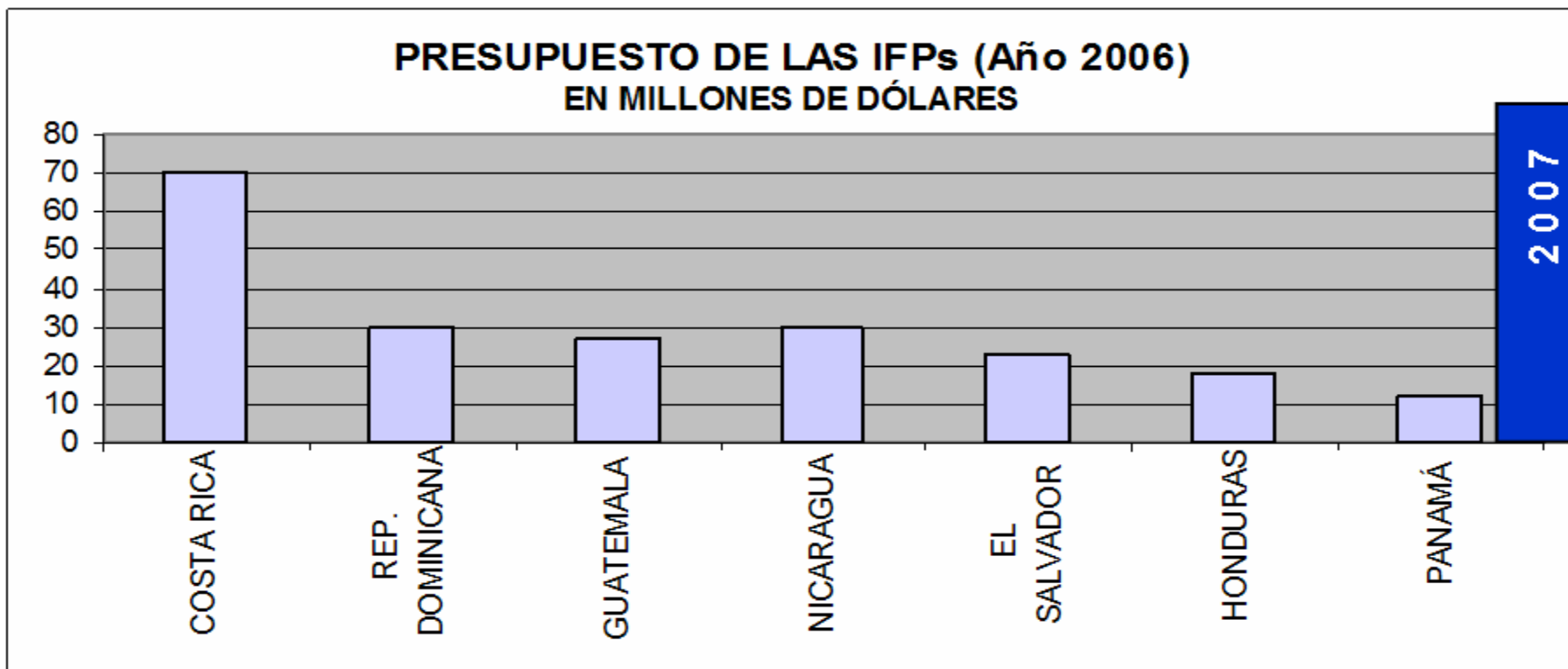


PECTP

Programa Especial de Capacitación
Técnico Profesional
ACP-INADEH
(Special Technical and Professional
Training Program)







Special Technical and Professional Training Program

In order to supply the demand, we must guarantee the existence and availability of Panamanian qualified manpower, by training approximately **205,000 participants.**

THE MOST AMBITIOUS NATIONAL TRAINING PLAN, BASED ON THREE FOUNDATIONS

RELEVANCE

QUALITY

EQUALITY



RELEVANCE

MAIN AREAS

- 1. CONSTRUCTION.**
- 2. HOTELS AND TOURISM.**
- 3. MARITIME AND PORTS.**
- 4. TELECOMMUNICATIONS, TRANSPORT,
TECHNOLOGY.**
- 5. AGRICULTURE.**
- 6. LANGUAGES.**



QUALITY

- 1. Better the Infrastructure.**
- 2. Equipment and Teaching.**
- 3. Workshops and Model Courses.**



EQUALITY

COURSE DISTRIBUTION BY PROVINCE AND POPULATION TAKEN CARE OF

| DIRECCIONES PROVINCIALES | ACCIONES ASIGNADAS | MATRÍCULA PREVISTA | % |
|----------------------------------|--------------------|--------------------|--------|
| TOTALES: | 10,000 | 200,000 | 100.0% |
| BOCAS DEL TORO | 225 | 4,500 | 2.3% |
| COCLÉ | 420 | 8,400 | 4.2% |
| COLÓN | 925 | 18,500 | 9.3% |
| CHIRIQUÍ | 1,140 | 22,800 | 11.4% |
| DARIÉN | 40 | 800 | 0.4% |
| HERRERA | 225 | 4,500 | 2.3% |
| LOS SANTOS | 155 | 3,100 | 1.6% |
| PANAMÁ | 5,900 | 118,000 | 59.0% |
| VERAGUAS | 435 | 8,700 | 4.4% |
| KUNA YALA | 130 | 2,600 | 1.3% |
| EMBERÁ WOUNAAN | 35 | 700 | 0.4% |
| NGOBE BUGLÉ | 360 | 7,200 | 3.6% |
| COMISIÓN BRI BRI Y COMISIÓN NASO | 10 | 200 | 0.1% |

(*) Elaborado en base a la información preliminar de la Encuesta de Hogares realizada en marzo del 2006 .

ACP- INADEH MAIN AREAS

- **Industrial Electricity.**
- **Construction.**
- **Heavy Duty Equipment Mechanics and Operation.**
- **Soldering.**



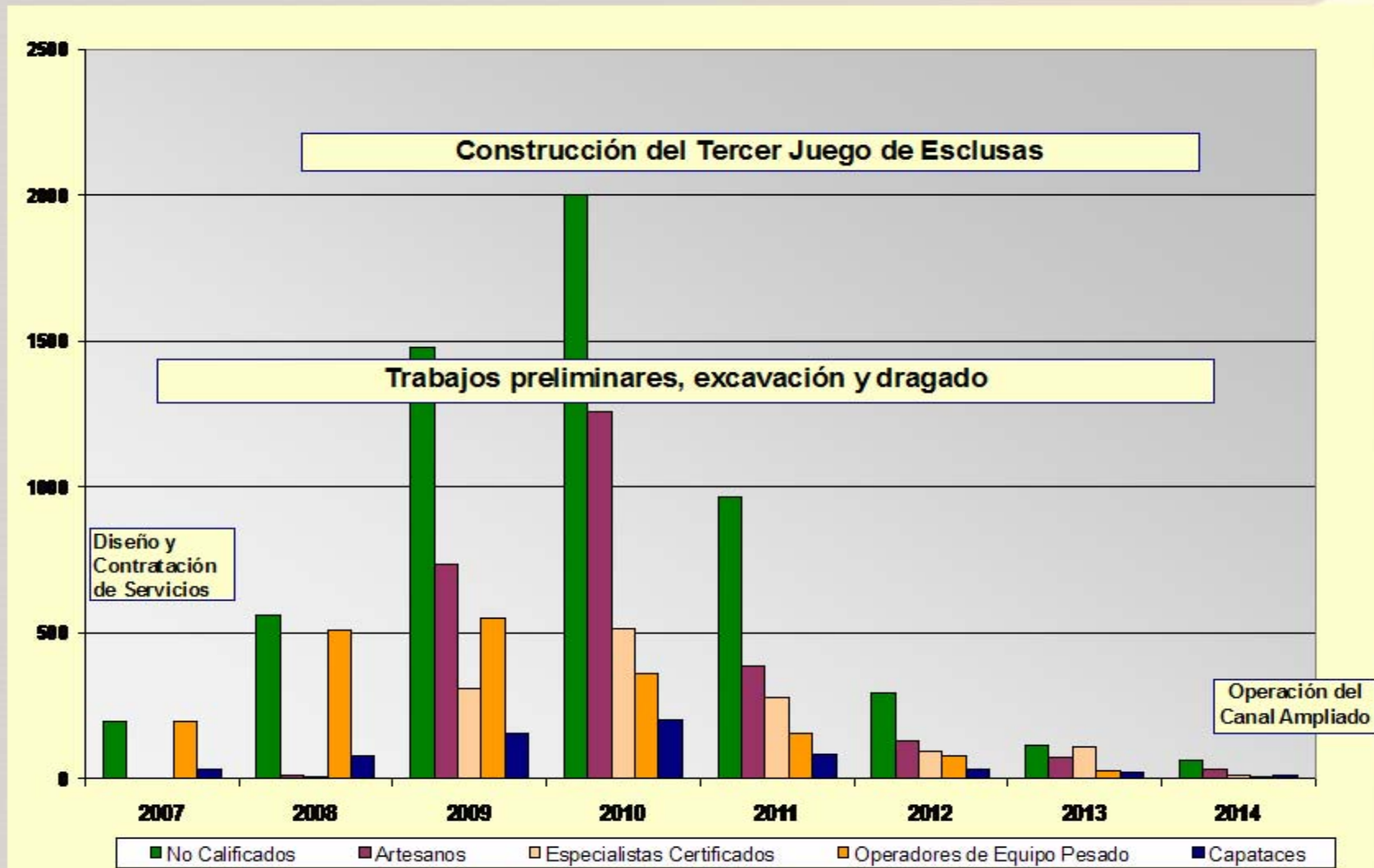
Demand for artisan technical positions ACP Project

| ESTIMADO DE PUESTOS DIRECTOS DE TRABAJO DURANTE EL PERÍODO DE EJECUCIÓN DEL PROGRAMA DE AMPLIACIÓN - MÁXIMA DEMANDA POR AÑO | | | | | | | | |
|---|---|--------------|--------------|--------------|--------------|------------|------------|------------|
| Oficios | Necesidades Anuales Máximas para 2 turnos solamente | | | | | | | |
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| No Calificados | 198 | 562 | 1476 | 2002 | 968 | 291 | 111 | 63 |
| Ayudantes | 142 | 414 | 859 | 1075 | 572 | 139 | 34 | 19 |
| Chofer | 14 | 54 | 139 | 138 | 74 | 20 | 0 | 14 |
| Principiantes | 36 | 82 | 405 | 704 | 246 | 115 | 76 | 30 |
| Equipo Liviano (compresor,bombas) | 6 | 12 | 73 | 86 | 76 | 17 | 1 | 0 |
| Artisanos | 0 | 9 | 734 | 1256 | 386 | 127 | 72 | 29 |
| Albañil | 0 | 0 | 205 | 430 | 60 | 46 | 32 | 15 |
| Carpintero | 0 | 0 | 233 | 442 | 139 | 41 | 24 | 6 |
| Manipulador de Explosivos | 0 | 9 | 79 | 79 | 0 | 0 | 0 | 0 |
| Reforzador | 0 | 0 | 217 | 305 | 188 | 40 | 16 | 8 |
| Especialistas Certificados | 2 | 6 | 308 | 515 | 276 | 95 | 108 | 13 |
| Aparejador | 0 | 0 | 48 | 71 | 89 | 20 | 8 | 2 |
| Electricista | 0 | 2 | 8 | 7 | 4 | 26 | 48 | 0 |
| Explosivista | 2 | 3 | 9 | 12 | 2 | 2 | 0 | 0 |
| Grúa | 0 | 0 | 92 | 165 | 70 | 20 | 14 | 6 |
| Mecánico Equipo Pesado | 0 | 0 | 31 | 46 | 39 | 10 | 16 | 0 |
| Soldador | 0 | 1 | 120 | 214 | 71 | 17 | 22 | 5 |
| Operadores de Equipo Pesado | 198 | 508 | 550 | 358 | 155 | 80 | 28 | 8 |
| Camión Volquete | 78 | 252 | 185 | 108 | 36 | 22 | 16 | 0 |
| Cargador frontal | 16 | 20 | 27 | 6 | 4 | 3 | 2 | 8 |
| Cuchilla | 5 | 6 | 15 | 6 | 5 | 0 | 0 | 0 |
| Excavadoras o Palas | 14 | 68 | 50 | 25 | 5 | 9 | 10 | 0 |
| Montacarga | 10 | 12 | 22 | 25 | 22 | 2 | 0 | 0 |
| Perforadora | 43 | 37 | 56 | 74 | 19 | 17 | 0 | 0 |
| Planta de Concreto | 0 | 4 | 14 | 12 | 6 | 3 | 0 | 0 |
| Rolo | 0 | 10 | 57 | 40 | 26 | 12 | 0 | 0 |
| Tractor | 32 | 99 | 124 | 62 | 32 | 12 | 0 | 0 |
| Capataces | 30 | 79 | 156 | 203 | 83 | 31 | 22 | 11 |
| Concreto | 0 | 4 | 63 | 104 | 20 | 17 | 20 | 11 |
| Excavación | 28 | 71 | 43 | 33 | 12 | 6 | 2 | 0 |
| Perforación | 2 | 4 | 9 | 10 | 2 | 2 | 0 | 0 |
| Carpintería | 0 | 0 | 19 | 33 | 28 | 4 | 0 | 0 |
| Refuerzo | 0 | 0 | 22 | 23 | 22 | 2 | 0 | 0 |
| Total de Mano de Obra Directa | 428 | 1,164 | 3,224 | 4,334 | 1,868 | 624 | 341 | 124 |

Manpower for Dredging, and Drilling and Blasting works

| Ocupación | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|------|------|------|------|------|------|------|------|
| Aceitero | 34 | 55 | 61 | 84 | 82 | 52 | 59 | 58 |
| Marino | 58 | 142 | 167 | 333 | 301 | 209 | 209 | 224 |
| Operador de dragas | 5 | 14 | 19 | 29 | 24 | 15 | 17 | 18 |
| Ingeniero de máquinas | 20 | 46 | 54 | 107 | 90 | 59 | 61 | 64 |
| Operador de equipo flotante | 25 | 48 | 53 | 95 | 86 | 55 | 49 | 56 |
| Capitán y oficial de draga y equipo flotante | 18 | 43 | 52 | 106 | 92 | 63 | 63 | 63 |
| Explosivista | 15 | 15 | 17 | 14 | 12 | 4 | 10 | 6 |
| Operador de explosivos | 22 | 22 | 32 | 26 | 16 | 8 | 38 | 18 |
| Operador de equipo de perforación | 98 | 98 | 126 | 118 | 90 | 40 | 124 | 68 |
| Asistente de equipo de perforación | 13 | 13 | 13 | 13 | 13 | 6 | 6 | 6 |
| Operador de equipo de ingeniería | 15 | 27 | 33 | 18 | 24 | 12 | 30 | 18 |
| Ayudante de equipo de ingeniería | 4 | 8 | 10 | 6 | 8 | 4 | 4 | 4 |
| Operador de equipo pesado | 78 | 78 | 105 | 55 | 6 | 6 | 72 | 50 |
| Operador de grúa | 0 | 4 | 6 | 18 | 14 | 10 | 8 | 6 |
| Capataz y líder | 19 | 22 | 28 | 31 | 21 | 18 | 30 | 23 |
| Obrero o ayudante artesanal | 41 | 55 | 64 | 66 | 30 | 16 | 61 | 46 |
| Carpintero | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Electricista | 42 | 45 | 45 | 53 | 51 | 48 | 45 | 46 |
| Hojalatero | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Instalador de tuberías | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Mecánico de equipos eléctricos | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| Mecánico, reparador de equipo y equipo pesado | 29 | 31 | 36 | 32 | 27 | 25 | 44 | 34 |
| Pintor | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Soldador | 21 | 27 | 28 | 34 | 34 | 28 | 27 | 26 |
| Tornero | 16 | 17 | 17 | 17 | 18 | 17 | 17 | 17 |
| Subtotal | 611 | 849 | 1005 | 1294 | 1079 | 734 | 1013 | 890 |

Over Time Distribution of Required Artisan Technical Manpower Estimates



STRATEGY

Activities:

- Special Programs Design.
- Commissioning and Provision of Model Workshops.
- Announcement.



SPECIAL PROGRAMS



TEACHING

- Ensure that instructors and workshops for the PECTP comply with the international certification requirements relevant to each trade.
- Will be coherent and consistent with each of the activities around the PECTP.



FOREMEN – CAPAC

Concrete
Excavation
Drilling
Carpentry
Reinforcement

Update Courses



Courses on risk prevention and evaluation, health, safety in facilities, equipment and construction, personnel supervision and administration, English module.



Blasting Experts

Groups of five participants in hands-on training with an estimated 270 hours of training including participating in 40 blasting operations.

Selective Convocation

Heavy Duty Equipment Operators

Candidates: Experienced personnel



PECTP and PILOT

- Short-term training.
- Probability of companies renting both the equipment and its operator.
- Possibility of selected trainees being sent to Centers in Colombia and/or Ecuador.

HEAVY DUTY EQUIPMENT SIMULATORS

- **Training for operating specific heavy duty equipment** (excavators, graders, dump trucks, etc.)



- **Optimizes operator training time.**
- **Eliminates operation risks compared to real equipment.**



**COMMISSIONING AND
PROVISION OF MODEL
WORKSHOPS**

ELECTRICAL MODEL WORKSHOP

The purpose of this workshop is to offer theoretical and hands-on training related to electricity, so that participants gain the knowledge and skills identified in the profiles of technical professions. The scope of the lab present, among other, modules on Basic Electricity, Home and Industry Electrical Installations, and Industry Electrical Controls, to train electricians on preventive maintenance, failure location and automation.



SOLDERING MODEL WORKSHOP

This workshop is intended for providing theoretical and hands-on training related to soldering techniques, so that participating groups obtain the knowledge and skills required for fulfil the training requirements of the technical profiles within the labour market. The scope of this Workshop is to present soldering modules, with each course offering 40 to 320 hours.



INDUSTRIAL MECHANICS MODEL WORKSHOP

After completing all programmed courses and taking the hands-on classes in the model workshop, participants will be able to perform basic mechanical work such as: replacing parts, regular maintenance work, like oil and filter replacements, and adjustment; they will also have the basic knowledge required for diagnosing mechanical system failures; and will be able to repair machinery components such as: cylinder heads, blowers, diesel pumps and water pumps.



CONSTRUCTION WORKSHOP

(Masonry, Carpentry, Concrete (Reinforced)).

Upon completing all theoretical courses and taking all hands-on workshops, participants will be ready to perform carpentry, masonry and concrete works.

They will be able to work in mortar and concrete proportioning and mixing; demolition operations with pneumatic or electric equipment.

Make formworks from layouts and assemble steel reinforcements according to specifications, pour concrete, install blocks and apply mortar to walls.



TECHNOLOGY PLATAFORM

- Bandwidth Expansion to 1MB in all PTC and to 5MB in Tocumen's PTC.
- IP Telephone System Implementation.
- Satellite Communication with 3 remote PTC.
- Videoconference System (4 PTC).
- Teleconference System (13 PTC).



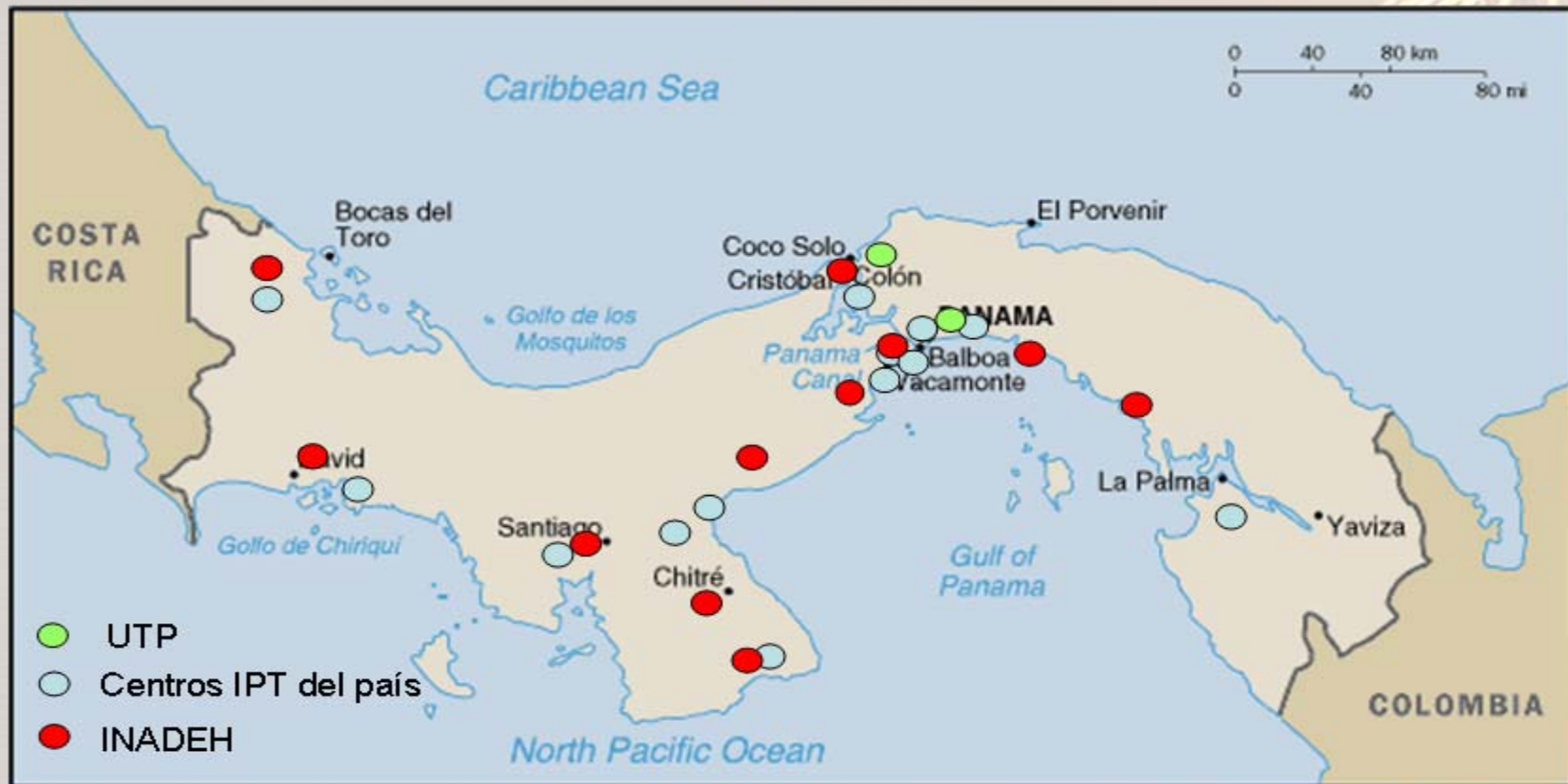
CISCO SYSTEMS LABORATORY

Equipment to be purchased:

- **CCNA** – For LAN and WAN local area network courses
- **CCNP** – For advanced network courses.
- Network Safety.
- Wireless Networks.
- Commissioning of more Network and Communication labs.
- Opening of new Communication courses.



Nation-Wide Distribution of INADEH's Training Centers



**INSTALLED CAPACITY OF INADEH WORKSHOPS FOR COURSES AND PARTICIPANTS
IN THE INDUSTRIAL AREA, BY PROVINCE AND CENTER**

| PROVINCIA | CENTRO | Área de Formación | | | | | | | | | | | | Total de talleres | Total de Cursos | Cap. de part. |
|----------------|-------------------|-------------------|-----------|------------|--------------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-------------------|-----------------|---------------|
| | | Construcción | | | Electricidad | | | Mecánica | | | Soldadura | | | | | |
| | | Taller | Curso | Part. | Taller | Curso | Part. | Taller | Curso | Part. | Taller | Curso | Part. | | | |
| PANAMÁ | Tocumen | 8 | 8 | 160 | 10 | 10 | 200 | 6 | 6 | 120 | 9 | 9 | 180 | 33 | 33 | 660 |
| | La Chorrera | 2 | 2 | 40 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 5 | 5 | 100 |
| | Chepo | 2 | 2 | 40 | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 60 |
| | Bonifacio Pereira | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | Total | 13 | 13 | 260 | 13 | 13 | 260 | 8 | 8 | 160 | 11 | 11 | 220 | 45 | 45 | 10,800 |
| COLÓN | Puerto Escondido | 4 | 4 | 80 | 4 | 4 | 80 | 2 | 2 | 40 | 3 | 3 | 60 | 13 | 13 | 260 |
| | Náutico Pesquero | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 4 | 4 | 80 | 4 | 4 | 80 | 2 | 2 | 40 | 3 | 3 | 60 | 13 | 13 | 3,120 |
| CHIRIQUÍ | David | 3 | 3 | 60 | 2 | 2 | 40 | 2 | 2 | 40 | 3 | 3 | 60 | 10 | 10 | 200 |
| | Las Lajas | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | Total | 4 | 4 | 80 | 3 | 3 | 60 | 3 | 3 | 60 | 4 | 4 | 80 | 14 | 14 | 3,360 |
| VERAGUAS | Santiago | 2 | 2 | 40 | 2 | 2 | 40 | 2 | 2 | 40 | 2 | 2 | 40 | 8 | 8 | 160 |
| | El Bongo | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 | 1 | 1 | 20 | 2 | 2 | 40 |
| | Total | 2 | 2 | 40 | 2 | 2 | 40 | 3 | 3 | 60 | 3 | 3 | 60 | 10 | 10 | 2,400 |
| BOCAS DEL TORO | Chiriquí Grande | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 | 1 | 1 | 20 |
| | Changuinola | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 | 2 | 2 | 40 |
| | Total | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 40 | 3 | 3 | 720 |
| COCLÉ | Penonomé | 3 | 3 | 60 | 1 | 1 | 20 | 3 | 3 | 60 | 1 | 1 | 20 | 8 | 8 | 160 |
| HERRERA | Chitré | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| LOS SANTOS | Guararé | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 | 2 | 2 | 40 |
| DARIÉN | Arimae | 2 | 2 | 40 | 0 | 0 | 0 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| KUNA YALA | Isla Mirya | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 |
| | Total | 8 | 8 | 160 | 2 | 2 | 40 | 5 | 5 | 100 | 4 | 4 | 80 | 19 | 19 | 4,560 |
| Totales | | 32 | 32 | 640 | 24 | 24 | 480 | 21 | 21 | 420 | 27 | 27 | 540 | 104 | 104 | 24,960 |

**INSTALLED CAPACITY OF MEDUCA WORKSHOPS FOR COURSES AND PARTICIPANTS
IN THE INDUSTRIAL AREA, BY PROVINCE AND CENTER**

| PROVINCIA | CENTRO | Área de Formación | | | | | | | | | | | | Total de talleres | Total de Cursos | Cap. de particip. |
|----------------------------------|-------------------------|-------------------|-----------|------------|--------------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-------------------|-----------------|-------------------|
| | | Construcción | | | Electricidad | | | Mecánica | | | Soldadura | | | | | |
| | | Taller | Cursos | Part. | Taller | Cursos | Part. | Taller | Cursos | Part. | Taller | Cursos | Part. | | | |
| PANAMÁ CENTRO | IPT Don Bosco | 0 | 0 | 0 | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 |
| | IPT Jephtha B. Duncan | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 |
| | Escuela Artes y Oficios | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | Total | 2 | 2 | 40 | 2 | 2 | 40 | 1 | 1 | 20 | 1 | 1 | 20 | 6 | 6 | 1,440 |
| PANAMÁ OESTE | IPT La Chorrera | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | IPT Fernando De L. | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 1 | 1 | 20 | 3 | 3 | 60 |
| | Total | 2 | 2 | 40 | 2 | 2 | 40 | 1 | 1 | 20 | 2 | 2 | 40 | 7 | 7 | 1,680 |
| SAN MGTÓ., LAS CUMBRES, CHILIBRE | IPT Angel Rubio | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | IPT Louis Martinz | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | IPT San Miguelito | 1 | 1 | 20 | 0 | 0 | 0 | 1 | 1 | 20 | 1 | 1 | 20 | 3 | 3 | 60 |
| | Total | 3 | 3 | 60 | 2 | 2 | 40 | 3 | 3 | 60 | 3 | 3 | 60 | 11 | 11 | 2,640 |
| CHIRIQUÍ | IPT Chiriquí Oriente | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | IPT David | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 3 | 3 | 60 |
| | Total | 2 | 2 | 40 | 2 | 2 | 40 | 2 | 2 | 40 | 1 | 1 | 20 | 7 | 7 | 1,680 |
| VERAGUAS | IPT Las Palmas | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | IPT Veraguas | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| | Total | 2 | 2 | 40 | 2 | 2 | 40 | 2 | 2 | 40 | 2 | 2 | 40 | 8 | 8 | 1,920 |
| COCLÉ | IPT E Ind. de Aguadulce | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 3 | 3 | 60 |
| | IPT Salomón Ponce | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 40 |
| | IPT Leonila de Grimaldo | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 1 | 1 | 20 | 3 | 3 | 60 |
| | Total | 3 | 3 | 60 | 3 | 3 | 60 | 1 | 1 | 20 | 1 | 1 | 20 | 8 | 8 | 1,920 |
| BOCAS DEL T. | IPT Bocas del Toro | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 3 | 3 | 60 |
| COLÓN | IPT Colón | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| HERRERA | Instituto de Artes Mec. | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| LOS SANTOS | IPT Azuero | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 1 | 1 | 20 | 4 | 4 | 80 |
| DARIÉN | IPT Marcos Alarcón | 1 | 1 | 20 | 1 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 40 |
| | Total | 5 | 5 | 100 | 5 | 5 | 100 | 4 | 4 | 80 | 3 | 3 | 60 | 17 | 17 | 4,080 |
| | Totales | 19 | 19 | 380 | 18 | 18 | 360 | 14 | 14 | 280 | 13 | 13 | 260 | 64 | 64 | 15,360 |

INADEH GRADUATES FROM DIFFERENT AREAS 2002 - 2006

| A R E A S | GRADUATES PER YEAR | | | | | |
|---------------------------------------|--------------------|------|------|------|------|-------|
| | 2002 | 2003 | 2004 | 2005 | 2006 | Total |
| Civil Construction | 2221 | 1807 | 1941 | 2516 | 3026 | 11511 |
| Wood | 501 | 777 | 732 | 663 | 804 | 3477 |
| Electricity, electronics and telecom. | 2120 | 1999 | 1997 | 2013 | 2384 | 10513 |
| Refrigeration | 432 | 525 | 546 | 458 | 384 | 2345 |
| Metal Mechanics | 1533 | 1470 | 1820 | 1987 | 2467 | 9277 |

