



SAS® SOLUTIONS FOR INTERNATIONAL DEVELOPMENT

Effectively plan, evaluate and implement social development projects and programs with transparency and accountability





Measure program performance and monitor fraudulent activity

■ Challenges

1. Developing countries lack technology resources, human capital and knowledge to perform essential functions of project implementation.
2. Data from many disparate sources support a myriad of people, processes and reports, causing data privacy and traceability issues.
3. There exists a cause and effect of the cycle of poverty and a lack of fiscal resources to invest in infrastructure.
4. It can be difficult to sustain good governance of funds and of society.
5. Policy makers may not have an awareness of core public issues.
6. Countries may use inadequate measuring techniques and ineffective accountability standards.
7. There is a lack of progress on project goals, or there are unidentified or unquantifiable project deliverables.
8. Organizations lack a cohesive anti-corruption strategy for enforcement.
9. Risk mitigation is hindered and costly because the predictors for risk are not known or understood.

Measure and report progress on Millennium Development Goals

In 2000, the United Nations Millennium Declaration established the Millennium Development Goals (MDGs) in order to set objectives based on clear performance indicators for the developing world. Although significant progress has been made toward achieving these goals, there is still much that needs to be done – particularly in poor and remote rural areas of developing countries. As José Antonio Ocampo, UN Under-Secretary-General for Economic and Social Affairs, noted in *The Millennium Development Goals Report* in 2006, “Much more can and must be done, both by developed countries in increasing their support and by developing countries in using foreign assistance and their own resources more effectively.”¹

According to the report, “The 50 least developed countries now receive about one third of all aid flows, and donors have pledged to double aid to Africa, where most of these countries are located, by 2010. If all donors honor their commitments, aid is expected to reach \$130 billion by 2010.”²

From commitment to result, how will these funds be managed? In the absence of technology and advanced data analysis, it is difficult – if not impossible – to plan and evaluate social development projects based on their contribution to overall national strategies and in accordance with the MDGs. Lack of measured results often leads to failure and abandoned projects, particularly in underdeveloped, technology-deprived nations. Add to this the lack of IT-skilled human capital, the insufficient governance of funds, and underrepresented civil society and institutional infrastructure, and sustainable outcomes appear insurmountable.

¹ United Nations (2006). *The Millennium Development Goals Report*. New York: United Nations Department of Economic and Social Affairs.

² Ibid.

MDGs not only reflect global justice and human rights, they are also vital to international and national security and stability. Prevention of failed states is far less expensive than rebuilding those same failed states. Poor and hungry societies are much more likely to fall into risk of civil and external conflict over scarce vital and natural resources than high-income societies. It is well-known that social and economic development projects require civil stability to succeed.

Without the transparent view of effectiveness that data analysis provides, social projects are not understood as contributing to national and international progress, often resulting in internal competition for project resources and in some cases being seen as the proximate cause of social unrest. Intelligent analysis can support civil stability by transparently showing progress toward mutual goals.

When properly planned, tracked and measured using advanced data analysis, projects can yield a much higher probability for success as well as significantly reduced costs. Advanced data analysis can help to remove the speculation, the assumptions and the hidden reality in order to accurately evaluate project feasibility and understand the critical role of human performance in successful implementation.

Solution

What is SAS® for Program Performance Management?

SAS for Program Performance Management provides an interactive and collaborative environment to help you communicate organizational goals and strategies, monitor performance against targets and identify opportunities for improvement. It is a Web-based application for designing, building and managing scorecards, dashboards and diagrams, including strategy maps.

Why is it important?

SAS for Program Performance Management allows organizations to align, monitor and measure the execution of key initiatives that serve strategies and performance goals. With this performance visibility, you ensure alignment with strategic goals and respond proactively to changes in your environment. Combined with SAS Analytics, SAS for Program Performance Management enables you to predict the future performance and progress of your organization and use that foresight to identify opportunities for improvement or correction.



The path to improve – the power to predict

■ The SAS® Analytics Platform

Core project infrastructure is essential to understanding a project's impact and its success or failure. The SAS Analytics Platform provides a consistent, accurate view of information throughout the organization. Data that resides in a multitude of silo systems and databases becomes part of a unified body of organizational knowledge that is continually updated, validated, reconciled and managed for integrity, providing you with a reliable, single version of the truth.

Layered on top of the platform are patented predictive analytics for risk, performance, human capital and financial management, which provide a superior infrastructure for analysis. These components serve as a proven framework to assist government agencies and nongovernment organizations as they institute development strategies and technology solutions to manage program performance; eliminate improper payments, fraud, waste and abuse; and reduce financial risk.

The SAS Approach: Program Performance Management

Every organization monitors business performance in one way or another. However, surprisingly few organizations utilize performance management to its full technological extent, maximizing their investment and success. To be effective, program performance management must serve as a vehicle to articulate and communicate your strategy, as well as to measure and improve it.

SAS for Program Performance Management provides the software and services to maximize every aspect of an organization. It is designed to help you manage organizational effectiveness and measure performance against stated objectives through the integration of technology, processes, people and methodologies. SAS provides visibility to know the facts of what is going on in an organization, identify problems, their causes and their impacts, monitor program performance against goals, and determine a path to improvement with an eye to the future – understanding where and how best to correct course.

To drive a performance management strategy, organizational objectives should:

- Develop culture, processes and technologies for fact-based decision making.
- Support compliance and governance.
- Calculate and mitigate risk.
- Improve agility to respond to changes faster.
- Meet the needs of internal and external stakeholders.
- Drive innovation.

The SAS international development solution for program performance management includes software, services and best practice methodology in a completely transparent environment. Only SAS provides a timely and accurate view of information linked to budgeting, scorecarding and strategy maps with predictive analytics that go beyond helping you understand what has happened to helping you understand what will happen and what to do next.

SAS helps you achieve these strategic objectives:

- **Report.** Ensure financial, operational and performance transparency.
- **Manage and control.** Align resources, finances and strategies for risk and operations.
- **Improve.** Continually improve results through new insights and more accurate predictions.
- **Focus strategically.** Realize an effective, holistic performance strategy.

SAS can tell you what measures drive your goals and whether what you are measuring has any impact on project performance or goal attainment. As a result, you focus your organization only on what matters – thus saving time and improving efficiency across the organization. SAS can also predict what the optimal levers are for maximum yield. This allows you to manage your project/program goals, identify meaningful project outcomes and manage your project execution while allowing decisions to be made midstream and project deliverables to be adjusted, rather than identifying a success or failure at the project's completion.

SAS for Program Performance Management allows you to promote good governance because it supports meaningful analysis and performance management that spans operational units, stakeholder groups and project courses. Deep insights revealed by analysis are shared securely with authorized users presented in exactly the right format and depth for their unique needs. This allows you to understand the challenges faced in your development endeavors and enables you to realize a path to address such challenges while you are addressing core public issues.

■ The SAS® Analytics Platform

SAS Data Integration provides prebuilt, high-performance capabilities for data connectivity, data quality, ETL (extract, transform and load), data migration, data synchronization and data federation.

SAS Intelligence Storage is a dedicated solution that efficiently stores and disseminates information for business intelligence and analytic requirements, offering relational and OLAP storage options from the same foundational inputs.

SAS Analytics is an integrated environment for predictive and descriptive modeling, forecasting, optimization, simulation, experimental design and more. SAS Analytics leverages existing data and infrastructures to support effective decision making and integration into business intelligence environments.

SAS Business Intelligence delivers a set of BI capabilities that enable different types of users to surface meaningful intelligence from consistent, organizationwide data.



Reaching the Millennium Development Goals with SAS® Solutions

The SAS® Difference

- SAS offers superior data analysis techniques, development expertise and in-country networks of regional offices, ensuring local expertise in support of UN and multilateral development bank-funded projects. SAS software also provides multilanguage support to meet the needs of international organizations and has an in-depth understanding of the challenges faced by developing countries to support them in their efforts to achieve the MDGs.
- The SAS comprehensive suite of analytics software helps organizations reduce uncertainty, predict with precision and optimize performance in a holistic approach. SAS' full breadth of analytics offerings include statistics, data and text mining, model management and deployment, forecasting, econometrics, quality improvement, and operations research.
- With three decades of expertise helping governments and NGOs around the world, SAS is deeply committed to the success of its customers, annually investing at least 24 percent of revenues into research and development. With a proven track record of delivering quality solutions, SAS today has customers at more than 42,000 business, government, nonprofit and university sites in 114 countries.

Millennium Development Goals

Success Stories Using SAS® Solutions

This is just a small sampling of the extraordinary ways in which SAS continues to contribute to the progress of reaching the Millennium Development Goals.

1) Eradicate extreme poverty and hunger.

Overcoming poverty in Mexico is a national priority. During the year 2000, 51 percent of the population was confronted with some level of poverty. In order to meet this challenge, **Mexico's Department of Social Development (Sedesol)** developed the Social Information System (SIS) using SAS, which identifies the true needs of Mexican households and thus provides the tools needed to create social policy options designed to improve living conditions for those households stricken with poverty.

The **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)** uses SAS to enhance environmental protection and other socio-economic needs. ICRISAT's goal is to harness the power of technology for development, food security, poverty alleviation and environment protection. In the past 27 years, ICRISAT has generated several important technologies, and this comparative advantage has been instrumental in improving agricultural productivity and reducing poverty, while working with the national agricultural research systems (NARS) and other partner institutions like NGOs and the private sectors.

2) Achieve universal primary education.

The wrath of Hurricane Katrina in the US made educating affected students a critical challenge. As part of SAS' effort to aid the storm-ravaged Gulf Coast region, SAS offered free online learning from its SAS inSchool® division to **Alabama schools**, using an innovative Web-based approach. These online-only resources can reach students in class, at home and in community centers regardless of their educational background or physical location.

Since its founding nearly 30 years ago, **SAS** has demonstrated its commitment to leading the way in integrating education and technology. Over the past decade, SAS founded a school (Cary Academy); established a research and development division for curriculum resources (SAS inSchool); created a tool for delivering schooling effectiveness technology (SAS EVAAS for K-12) through the Web; and, developed a suite of administrative solutions. These efforts have earned awards and accolades from educators across the US.

3) Provide gender equality and empower women.

The **National Treasury of South Africa** is identifying the impact of government policies, such as affirmative action, on employment. In this post-apartheid era, social policy has aimed to increase significantly the representation of other ethnic groups; government departments have specific demographic targets that they must meet in pursuit of this objective to ensure people with disabilities and women are well-represented in public bodies. Information on the progress of the project – named "Vulindlela" – had to be viewed from a variety of perspectives: ethnicity, gender, geography, seniority, department and so on, and was done so using SAS.

A balance between economic and employment policy is a necessary condition for **European Union (EU)** development by 2010 (as defined in the Lisbon Agenda). Implementation of the newly adopted European employment policy and indicators is a demanding task for all EU member states, especially for new members as they adapt to a market economy. New EU member states like **Slovenia** – which gained EU status in May 2004 – must have metrics in place that allow them to monitor labor market trends and evaluate employment policy. Using the Labor

Market Indicators System (LMIS) developed by the Slovenia Ministry of Labor, Family and Social Affairs, coupled with SAS' analytic solution behind LMIS, Slovenia works toward the EU's employment strategy of "full employment and better jobs for all." Using SAS, the Ministry monitors 200 labor market indicators. These perspectives include policy measures for the unemployed, entrepreneurship, flexibility of work, workplace health and safety, human capital development, gender equality, payment for work, social inclusion and regional disparities across the country. Results are published in labor market progress reports to the EU and to the Slovenian government.

4) Reduce child mortality.

The **Pan American Health Organization** is using SAS to load, transform, validate and update detailed mortality data received from vital registration systems of countries of the Americas into the Regional Mortality and Population Information System. SAS is also used to summarize, tabulate and analyze cause of death data, produce reports and generate graphic outputs of this information. These analyses contribute to an assessment of the health situation in countries of the Americas and knowledge of the distribution of the patterns of mortality by country, cause, sex and geographic area. SAS-summarized data, detailed at the four-digit level of the International Classification of Diseases (ICD), is sent to the World Health Organization (WHO) in Geneva to update the global mortality database.

The **Department of Health** is the health adviser of the government of the **Hong Kong Special Administrative Region** and an executive arm in health legislation and policy division. Its role is to safeguard the health of the community through promotion, preventive, curative and rehabilitative services and it uses SAS to fulfill its role. The motto, "Partnership in Health," reflects the involvement of the community and other health care professionals in the joint effort to improve the health of the people of Hong Kong. Main service areas include general out-patient services, family planning, maternal and child health services, health education, student health services, child assessment services and clinical genetics.

5) Improve maternal health.

The **Women & Infants Hospital of Rhode Island**, a **Care New England hospital**, is a leading US specialty hospital for women and newborns. The primary teaching affiliate of the Warren Alpert School of Medicine at Brown for obstetrics, gynecology and newborn pediatrics, Women & Infants is the 10th-largest obstetrical service in the US with more than 9,700 deliveries per year. The OB/GYN Division of Research translates findings in research into practice to enhance clinical care and facilitate an understanding of differences among diverse populations. Women & Infants' Department of Pediatrics uses SAS to participate in a number of national studies (including one of low-birth-weight babies) as well as to analyze data on adolescents who had mothers with gestational diabetes while pregnant with their children. The Brown Center for the Study of Children at Risk at Women & Infants uses SAS to aid its groundbreaking research of developmental outcomes of children who are born with prenatal drug exposure and other at-risk children.

The **Comprehensive Cancer Center at Duke University Medical Center** in NC (US) is using SAS to conduct an epidemiological research study to promote the health and well-being of pregnant women. The study focuses on cigarette and alcohol consumption, diet and use of dietary supplements in order to determine if these exposures affect newborn health and growth rate during the first year of life. Data is collected using blood samples from both mothers and newborns before and after birth. Changes in weight gain, laboratory measurements and molecular alterations will be analyzed from both mothers and babies using SAS to evaluate if these associations are present and indicate positive or negative trends between mother and newborn outcomes.

■ The SAS® Difference

- SAS offers the most comprehensive business intelligence (BI) platform by optimally integrating individual technology components within an existing IT infrastructure into a single, unified system. The result is an information flow that transcends organizational silos, diverse computing platforms and niche tools to deliver new insights that drive value for the organization.
- Business intelligence customers today demand solutions with very specific, easy-to-use capabilities that address issues unique to their industries. SAS has responded with a wide variety of vertical solutions, including anti-money laundering, credit risk management and fraud detection software and applications that streamline the clinical trials process for customers in the life sciences, among many others.
- While other risk solutions focus on managing risk exposures, SAS® for Enterprise Risk Management takes a broader view of risk, managing both exposures and opportunities to find that optimal balance of risk and reward.



Reaching the Millennium Development Goals with SAS® Solutions

■ Measure program performance and risk while monitoring fraudulent activity

Incorporating a program performance management strategy helps you monitor key performance metrics to determine program effectiveness and efficiency.

This allows you to define metrics in a dashboard environment and to monitor activities and threats proactively, which curtails fraud. As a result, you can identify sources of organizational failure and can isolate best practices that lead to success.

A program performance management solution also provides a strategic heads-up that keeps your organization on course and stops fraudulent activity before it occurs. The management and control of improper payments and fraud require an iterative process of constant, consistent monitoring. Each agency's unique culture and business processes require the implementation of an anti-fraud strategy that is flexible to meet both the variety of internal business and operational processes and the ever-changing ways that fraudsters try to exploit those processes.

6) Combat HIV/AIDS, malaria and other diseases.

As the AIDS pandemic has spread across Africa, infecting and killing millions of adults and children, **Uganda's** comprehensive response has emerged as a model for the continent's sub-Saharan region. And since 2000, the **US Centers for Disease Control and Prevention (CDC)** have maintained offices in Uganda, focusing on HIV prevention and treatment for people living with the disease. Uganda is one of 15 countries included in the five-year, \$15 billion US President's Emergency Plan for AIDS Relief (PEPFAR), and CDC is a key implementing agency. In the fight against AIDS in Africa, CDC-Uganda relies on SAS software for all of its data management, analysis and reporting.

Founded in 2000 as the US' first not-for-profit pharmaceutical company, the **Institute for OneWorld Health** develops and tests drugs for tropical diseases that disproportionately plague the world's developing countries. The bites from sand flies infected with the visceral leishmaniasis parasite kill as many as 200,000 people each year in developing countries. While there are drugs available to treat this disease, all of them have serious drawbacks. Some are too toxic, some are too expensive, and others quickly become ineffective to resistant strains of the parasite. But with help from SAS software, the Institute for OneWorld Health is hoping to obtain regulatory approval from India in 2005 for a drug in the final phase of human trials.

Engaging in both basic and innovative, high-impact clinical research, the **Department of Pediatrics and Adolescent Medicine** at the **University of Hong Kong** has used SAS for statistical genetics software to analyze genetic marker data and its association with diseases. The department is currently investigating the genetic factors contributing to the development of infectious and autoimmune diseases that are prevalent in the Hong Kong Chinese population. These diseases are caused by many risk factors interacting together, including infectious agents, environmental and genetic factors.

7) Ensure environmental sustainability.

The **Chinese Ministry of Water Resources (MWR)** is the department of the state council responsible for water administration in China. Responsibilities include: the implementation of integrated management of water resources – including atmospheric water, surface water and groundwater; the organization, coordination, supervision and direction of nationwide flood control; and the execution of operations of flood control and drought prevention for major river basins and key water projects. For the Tai Lake drainage area irrigation system, MWR had to decide when to hold water without leading to a drought and when to release water without creating a flood. With the SAS® Enterprise Intelligence Platform, MWR has the capability to extract and consolidate data from a large amount of different collection points. Success of the pilot project provided a scientific basis for making decisions about flood control and drought relief.

In Pennsylvania (US), the state **Department of Environmental Protection's Bureau of Water Supply and Wastewater Management** used SAS to develop its statewide drinking water information system, which comprises a detailed inventory of all drinking water facilities in the state as well as 2.9 million drinking water sample analysis records. The Division of Drinking Water Management reports that the necessary monitoring of more than 70 contaminants at various sampling points at different frequencies and schedules is now a much easier task.

8) Develop a global partnership for development.

SAS is aiding foreign assistance efforts through the **Economic and Social Databases (ESDB)**, which bring more than 5,000 data series from 50 sources together in one place and makes them available online globally to **US AID, the US Department of State and the public**. The ESDB was created to provide a central source of economic and social data pertinent to the State Department and US AID employees to avoid having to gather data from multiple sources. The goal is to allow US AID to access economic and social indicators in US AID-assisted countries or regions and across countries and regions. This allows US AID staff to monitor countries and assist them in making policy decisions. Examples of ESDB sources are the World Development Indicators from the World Bank, Direction of Trade Statistics from the IMF, The PRS Group: International Country Risk Guide, UNCTAD: Foreign Direct Investment (FDI), World Telecommunication Indicators Database, Governance Matters Indicators (World Bank Institute) and International Development Flows from the OECD.

When addressing major social issues such as homelessness and hunger, every dollar counts. To maximize results, leaders of nonprofit organizations need to make sure each appeal reaches the right donor audience. SAS helps **World Vision**, a Christian relief agency that links needy children, their families and their communities with generous donors, to discover which types of fundraising campaigns are most effective and which donors are most likely to continue giving. World Vision works to reduce poverty and improve living conditions in nearly 100 countries through a range of programs, such as child and family sponsorships, directed donations and emergency relief after civil wars or natural disasters.

South Africa is one of the pilot countries for creating consolidated Government Financial Statistics (GFS) within the framework laid down by the International Monetary Fund and the World Bank. This framework is designed to enable comparisons of government spending between different countries and required South Africa to reclassify all items of government expenditure within GFS standards. To solve the problem of integrating data scattered across an enormous number of legacy transaction systems covering finance, personnel, logistics and procurement, and the paymaster general's functions, the government consolidated the various data sources with SAS to meet its reporting needs both for GFS and Vulindlela. (Vulindlela is a National Treasury of South Africa project that identifies the impact of government policies on increasing ethnic representation in employment). Given the size and scope of the South African government, the project involved a massive data re-engineering, application and database-mapping project. As a first stage, Vulindlela data is being transformed with daily, weekly and monthly updates and organized into a large number of data marts, which in turn feed multidimensional databases (MDDBs) that can be used for data analysis from the client environment. The data marts are a necessary phase on the way toward a fully integrated enterprise data warehouse.

Social Compact, a Washington, DC-based nonprofit coalition of American business leaders, promotes successful business investments in underserved communities. By leveraging its leadership's business expertise, it addresses impediments to private investment in inner-city communities; e.g., negative stereotypes, poverty data, lack of dependable business market information and an absence of effective inner-city market analysis models. The coalition uses SAS software to give potential investors a clear picture of investment opportunities in underserved parts of the US by assessing existing market opportunities and predicting strong emerging, yet overlooked markets. Through its research and analysis, Social Compact aims to fuel the long-term competitive strength of lower-income communities by attracting needed capital.

Measure program performance and risk while monitoring fraudulent activity

There are various approaches to counteract fraud, waste, abuse and improper payments, ranging from implementing individual solutions in a step-by-step manner to addressing targeted challenges to an enterprisewide approach in which organizations receive a complete solution package for solving a variety of fraud challenges across the organization.



A critical imperative to manage projects and funds effectively

Solution

What is SAS®

Financial Intelligence?

With financial intelligence, organizations develop a consistent approach to the spectrum of financial management needs to enable greater accountability and transparency. By proactively managing risk, organizations can examine risk before complications arise. Early intervention in the cycle reduces the risk that funds will be misappropriated.

Why is it important?

Tightening internal controls is another way to reduce fraud. A renewed focus on an internal control framework ensures that control risk is mitigated, thereby reducing opportunities for fraud to go undetected. Organizations will have a clearer picture of how effectively funds flow throughout their organizations, where possible weakness or process gaps exist, and who might be affected.

Organizations are not only concerned with detecting and deterring fraud. They also want to monitor expenditures for tightened internal controls on costs. Vigilance across multiple organizational functions and throughout the organization creates a culture of accountability, compliance and deterrence.

In addition to the benefits of using advanced data analysis and reporting to plan and evaluate social development projects, UN programs and funds must be effectively measured and managed for accountability in a completely transparent environment to prevent fraud and satisfy integrity checks on the use and allocation of funds.

For reporting purposes, national governments submit compiled statistics on their progress toward the MDGs to the UN Statistics Division and the statistical offices of the various international organizations, but adjust them for comparability. Statistics drawn from governments are not always the most recent. Most data is derived from international agencies' surveys. According to the UN, for countries that do not produce the required data for the compilation of indicators, "international statistical agencies make estimates based on the data of neighboring countries or of countries with similar levels of income."³

As stated in the UN's 2006 report:

Since the periodic assessment of progress towards the MDGs began five years ago, the international statistical community has been concerned about the lack of adequate data to compile the required indicators in many parts of the developing world. At the same time, the monitoring requirements themselves have focused attention on this shortcoming and raised awareness of the urgency to launch initiatives for statistical capacity building. Though there have been

many steps in this direction, much remains to be done until all countries are able to produce a continuous flow of social and economic data needed to inform their development policies and track progress.⁴

Factors such as inadequate measuring techniques, ineffective accountability standards, and unidentified or unquantifiable project deliverables (such as measured progress), can all contribute to the vulnerability of UN-funded programs to fraud, waste and abuse. Without measurement, risk mitigation and transparency, corruption can be an endemic reality in the developing world.

One of the 2006 UN report's time-bound targets is to "Develop further an open, rule-based predictable, non-discriminatory trading and financial system."⁵ Five years into the MDGs, leaders of the Group of 8 industrialized nations pledged to cancel the debt of heavily indebted countries for nations that meet the criteria of a "track record of sound macroeconomic performance."

According to the report, "The International Development Association of the World Bank, the International Monetary Fund and the African Development Fund will cancel debts to 19 countries that have met the requirements of the enhanced Heavily Indebted Poor Countries (HIPC) Initiative. Eleven other countries remain potentially eligible for debt relief under the initiative, but are kept out of the running by conflict, poor governance and arrears in payments."

³ Ibid.

⁴ Ibid.

⁵ Ibid.

The UN and other multinationals are committed to eliminating government corruption and are attacking this on several levels: enforcement, transparency, accountability and, most importantly, eliminating opportunities for corruption by simplifying processes. They can do this if they have a view of every project aspect, as well as a broader organizationwide view to predict risk and fraudulent activity. This can be achieved through the use of data analysis, financial intelligence and anti-fraud strategies to provide a single version of the truth to reduce risk and ensure that loans are timely and effective.

For lending to be effective, a recipient project must be clearly seen as part of a larger national, regional and global strategy. It must comply with regulatory measures and operate with minimal risk exposure. Building a strategy of transparency and progress measurement begins with data integrity. Data privacy issues and a lack of data standards can prevent traceability in projects increasing risk exposure across an organization. Inconsistent data from many disparate sources can hardly support a myriad of people, processes and reports with any degree of reliability and integrity.

The absence of accountability and no cohesive, global anti-corruption strategy – coupled with a lack of good governance and fiscal resources to invest in infrastructure in developing nations – all increase the risk of continued fraud, waste and abuse. Integrity checks continue to be very manual and time-intensive. With a lack of effective funding, project and program failure can result with the tragedy of not achieving a MDG.

Govern critical risk and compliance while protecting funding

The undeniable truth of government is that it is an expensive business; typically, the more radical the agenda or the more holistic the policy, the more it will cost. Another sad truth is that where there is money, there inevitably are fraud, abuse and error. Such misuse – intentional or not – costs governments and, ultimately, taxpayers. In effective democracies, tax revenues are raised to fund programs aimed at serving the needs of the citizens, while benefits and funds, on the other hand, can be targeted to those members of society who most need them. Those benefits should be delivered with minimal cost or waste.

The single most useful weapon you have available to counter these losses is the ability to make sense of the reservoirs of intelligence and meaning within the even bigger repositories of raw data that underpin the day-to-day business of government. Intelligence allows you to see poorly designed processes, hidden relationships within data and the faint traces left by even the best fraudsters so that risk can be managed and progress improved.

Implementing a strategy and technology solution to find and predict improper payments, fraud, waste and abuse helps organizations ensure that vital services and programs that citizens desperately need are there for them. It is for this reason that organizations around

the globe are turning to SAS to reduce the burden of fraud, error and abuse and restore that funding back to what it was originally intended for – improving lives through attainment of the MDGs.

Employing an anti-fraud strategy for risk-driven performance

When it comes to combating fraud, waste and abuse, an anti-fraud strategy and technology framework must be flexible enough to address the unique objectives and business processes of each organization as well as the increasingly devious and evolving mechanisms that fraudsters employ. As fraud schemes constantly change, fraud detection requires continuous vigilance. The process and strategy for fraud detection need consistent monitoring and refinement, and this requires the sophistication of advanced analytics combined with the infrastructure to support a growing database of behaviors to monitor.

In addition, you need a single point of control for effectively governing critical risk and compliance activities. When armed with the ability to monitor and predict risk exposures with confidence, you can operate with awareness. Effective risk management should be part of every aspect of an organization so that all initiatives and activities are executed with a complete understanding of potential risks and consequences.

SAS® for Enterprise Risk Management

Risk management is, at its essence, a way for organizations to strike an optimal balance between their growth and return objectives and the related risks. True enterprise risk management goes beyond balancing risk and reward and complying with regulations; it's about embedding risk management in everyday processes at all levels of the organization.

SAS Enterprise Risk Management gives you a current, credible understanding of your unique risks spanning all risk types (credit risk, operational risk, market risk, etc.), lines of business and other key dimensions. SAS delivers enterprise risk management through software and services that help reduce time to and cost of compliance by effectively and efficiently managing all types of risk and lowering associated costs.

At the heart of SAS for Enterprise Risk Management is a portfolio of robust analytic applications spanning credit risk, market risk, operational risk, compliance and fraud. Not only can you use a common means to capture, calculate and report on risk information using consistent definitions and standard metrics, you can distribute the right information to the right people at the right time in the right format. This makes risk management an integral part of your operations.

SAS® Fraud Prevention and Detection

SAS Fraud Prevention and Detection helps you stay one step ahead of fraud perpetrators by providing an end-to-end knowledge infrastructure that is designed to create consistent and reliable organizationwide intelligence on fraud. You can monitor transactions for suspicious behavior, analyze data to identify new patterns and refine fraud alert engines, and efficiently manage potential fraud cases from detection through notification of the authorities.

You can understand where fraud, waste and abuse are occurring and achieve complete transparency of the entire process from raw data to finished reports and analysis. You can get answers to questions such as: Where did this data come from? What's happened to it? and Who touched it? SAS' patented technology creates early warning systems, performs trend analysis and determines high-risk areas and problems before they occur.

SAS Fraud Prevention and Detection can seamlessly integrate with existing systems as well as provide a holistic solution that covers the entire process of technology-driven fraud prevention and detection. SAS, a proven leader in fraud protection, removes the guesswork and adds accountability so that banks, governments and agencies can focus on and facilitate political and economic progress.

From SAS, the leader in analytics

SAS is the leader in business intelligence and analytical software and services. Customers at 43,000 sites use SAS software to improve performance through insight from data, resulting in faster, more accurate business decisions; more profitable relationships with customers and suppliers; compliance with governmental regulations; research breakthroughs; and better products and processes. Only SAS offers leading data integration, storage, analytics and business intelligence applications within a comprehensive enterprise intelligence platform. Since 1976, SAS has been giving customers around the world THE POWER TO KNOW®.

To find out more about SAS solutions for performance management, visit <http://www.sas.com/solutions/pm/>.



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