

The Visible
“Red Flags”
of Implementation Fraud:
Roads, Structures, Equipment

What is fraud and corruption in project implementation ?

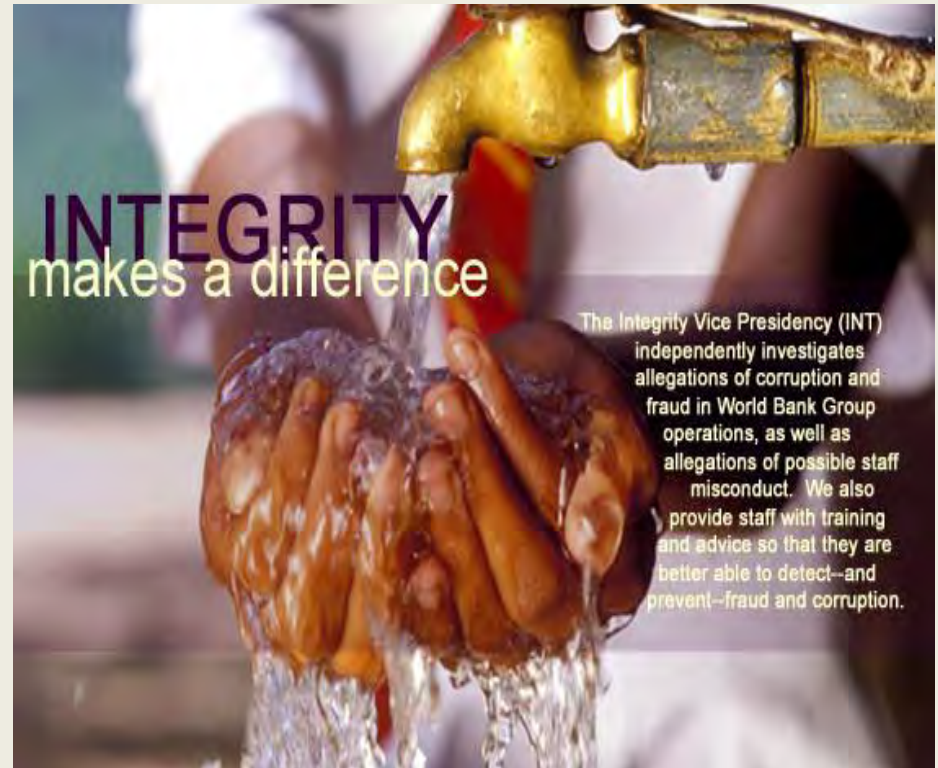
“Fraud” is defined by the IFI Guidelines as a “knowing and willfully act or omission, or a misrepresentation...”

Fraud often appears in implementation as the deliberate failure to meet contract specifications, the substitution of inferior quality materials or overbilling for works and materials.

“Corruption” is defined as “giving or receiving a thing of value to influence improperly the action of another...”

Corruption often occurs in implementation as improper payments to inspectors or supervising engineers to approve substandard goods, works , or services.

In the slides ahead, you will see the visible **red flags** of fraud and corruption in project implementation



Fraud and corruption in ROAD CONSTRUCTION

Fraud and **corruption** in road projects is occurs in many parts of the world, rich and poor.

In the construction phase, the **fraud** component can appear as, among other things:

- Laying inadequate **foundation** (base and sub-base) or **surfacing** materials;
- Using **substandard construction materials**;
- Failing to do adequate **compaction** of the road surface and base, or
- Failing to provide adequate **drainage** to prevent water from accumulating on a road;

All of which shortens the useful life of the road while increasing the economic costs to the users.

Corruption can appear as the payment to inspectors to accept substandard works and bribes to testing personnel to issue fraudulent test certificates.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

Use of improper base and sub base materials

The top photo shows gravel stored at a contractor's job site that was to be used to build a gravel road. Many of the stones were larger than that permitted by the contract specifications, and their use would have weakened the compaction of the road, leading to its early deterioration.

The lower photo shows that the contractor removed mesh from the screen used to sort the gravel in order to allow the larger stones to pass through. This would have resulted in considerable savings for the contractor.

The unfortunate results of such practices can be seen on the next slide...



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

Use of inadequate base and sub base materials, continued...

Pot holes, such as those shown here, which appear shortly after a gravel road's construction (within the first one to two years after construction) can indicate an inadequate foundation that causes the road to compress along the tire tracks, creating compressions that become potholes. Inadequate compaction and drainage can worsen the problem.

As the potholes fill with water, the road will deteriorate very quickly, as shown on the next slide...



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

Results of inadequate foundation and surfacing materials, compaction and drainage...

This road (the same one pictured on the first slide below the house) is shown thirteen months after its completion. It was designed to be an urban asphalt road with a useful life of 10 years.

According to local witnesses, the contractor failed to lay an adequate foundation or surfacing materials and failed to provide drainage or to compact the road according to specifications, with the result that the road was largely unusable after the next rainy season.

Bribes to Bank staff, local project officials and inspectors made the scheme possible.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

Inadequate base, sub-base and drainage

This road was constructed with a gravel base and sub-base and asphalt surfacing.

The road surface failures were caused by a break down of the base and sub-base, which could have been caused by the improper grading of the gravel used, inadequate compaction and poor drainage.

These factors caused the under layers to compress, and the asphalt surface to crack and disintegrate with the formation of severe potholes.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

Inadequate foundation and surface materials ...

In fact, in the road segment shown here, the contractor laid *no sub-base, base or surfacing materials at all*, instead delivering the road with a bare rock surface, which, as a further failure, was not cut down to the specified depth.

This, of course, resulted in very substantial savings for the contractor, and raises real issues about the quality and integrity of the supervision.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

A good example of inadequate drainage ...

Excessive water flow eroded the road surface because of inadequate drainage; the absence of drainage ditches and culverts along the sides of the road to carry the water from the road surface can be seen in the photo.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

A stark illustration of the impact of inadequate drainage on a road surface...

With no drainage ditch or culverts on the interior side of the road to collect and dispose of the surface water, the water flowed over the road surface and down the hill side, eventually eroding the road embankment.



Red flags of possible fraud and corruption in ROAD CONSTRUCTION

**Fraud and corruption in road construction
might also appear in more obvious ways –**

The road at right was 30% narrower than
required by the contract specifications,
and was delivered without the required
surfacing... yet the contractor was paid in
full.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Fraud in building construction usually involves the use of substandard construction materials and practices, including the:

- Use of concrete or mortar that does not contain adequate cement;
- Use of weak or inadequate amount of reinforcing steel in concrete, or the
- Failure to finish works to contract specifications before delivery.

Corruption appears in the form of payments or gifts to inspectors to approve poor quality materials and works.

The photo at the right shows poor quality building materials found at a hospital construction site, which failed and broke off before the building was ever occupied.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Use of substandard mortar and concrete...

The top photo is of crumbling mortar on a recently constructed drainage system at a hospital;

The bottom photo shows a cracked concrete cover on a hospital refuse pit, exposing decaying human and biological waste.

Both failures were due to inadequate cement content in the mortar (which is mix of sand and cement) and concrete (a mix of sand, gravel and cement).

Such abuses are quite common in construction projects and can save the contractors considerable sums.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Inadequate construction methods

The photos at the top left and right show the results of inadequately vibrated concrete, which allowed air holes (visible as the pock marks on the concrete) to form in and weaken the columns.

The photo in the lower left also shows pieces of bamboo carelessly mixed in with concrete.

Such shoddy practices can be hidden by the building's exterior (see the completed building on the lower right) but will weaken the structure and cause it to collapse if sufficiently stressed.

These photos illustrate the considerable advantage of monitoring works while they are under construction.



Red flags of possible fraud and corruption in the construction of BUILDINGS

The consequences of inadequate construction materials and practices can be catastrophic ...

Collapsed school in China as the result of the earthquake in Sichuan Province, attributed to weak concrete content and inadequate steel reinforcement, resulting from the alleged corruption of state supervisory personnel.

Other better-constructed structures nearby were virtually undamaged.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Failure to complete works to contract specifications ...

This purportedly “rehabilitated” hospital wing was delivered, accepted and paid for, with no signs that any of the contracted work was performed. Note the broken windows, ground conditions, etc.

The black mold on the concrete mortar indicates a low cement content; properly mixed mortar resists water penetration and the mold that results.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Failure to finish works to contract specifications

This photo shows a hole in a hospital wall from an interior toilet area allowing debris and waste to flow freely out ... a clear indication of substandard work facilitated by inadequate or corrupt supervision.



Red flags of possible fraud and corruption in the construction of BUILDINGS

More examples of the failure to complete works to contract specifications ...

The top photo shows a toilet in a delivered and accepted hospital without any connection to a water source.

The bottom photo is of shoddy, incomplete and dangerous exposed electrical wiring in another delivered and accepted hospital.

Both situations suggest the corruption of inspection and supervisory personnel, which is the primary impediment to ensuring the delivery of good quality works.

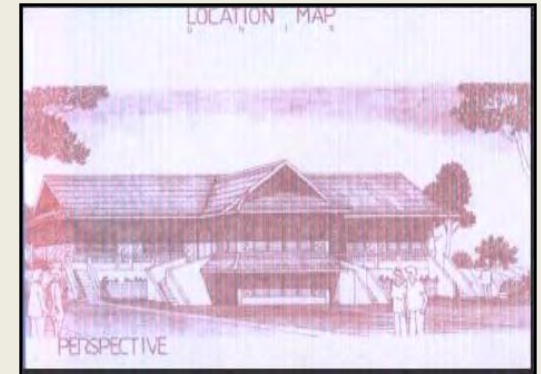
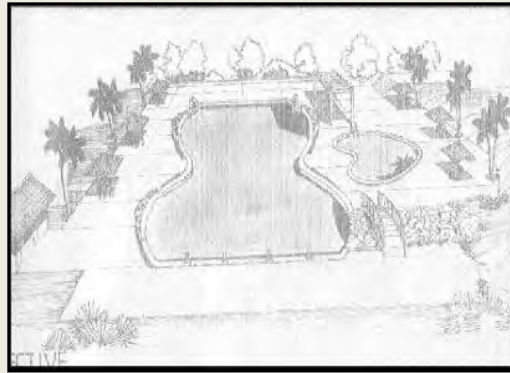


Red flags of possible fraud and corruption in the construction of BUILDINGS

Delivery of incomplete works that fail to meet contract specifications

The drawings on the top left and right show the design for an Eco Tourism Center; the photos on the bottom show the status of the construction with more than 50% of the funds disbursed and less than 30 days to scheduled completion.

The photos also reveal possible fraudulent “front loading” of billings by the contractor, as well as, yet again, inadequate or corrupt supervision.



Red flags of possible fraud and corruption in the construction of BUILDINGS

Non-existent works

A school was supposedly built on the site shown in this satellite photograph, which shows an empty lot.

The nonexistent “school” was at least delivered on time, however, and fully paid for.



Red flags of possible fraud and corruption in the provision of EQUIPMENT

Poor quality hospital equipment; possible failure to meet contract specifications and product substitution

The top photo is of a purportedly “new” and unused baby incubator.

The bottom photo shows a standard light bulb substituted for a defective radiant lamp, creating a severe health risk for the exposed infant.

The acceptance of such obviously substandard equipment also raises concerns about the legitimacy of the suppliers and corruption of the supervision process.



Red flags of possible
fraud and corruption in
the provision of EQUIPMENT

**Delivery and acceptance of
Substandard hospital equipment**

Top photo: hospital room with rusted
bed frame

Bottom photo: spray paint over rusted
bed frame, a good indication of
fraudulent intent by the supplier or
recipient



Red flags of possible fraud and corruption in the provision of EQUIPMENT

Over purchasing of items

The photos show the purchase of excessive quantities of standard office equipment, an indication of possible kickbacks by the suppliers to the project procurement staff.



Other visible **RED FLAGS** of fraud and corruption

Shell companies owned by project officials...

Addresses of purported road construction companies that won several Bank-financed contracts.

The winning firms were “briefcase” companies, owned by project and government officials, that subbed out all work they obtained to smaller, local companies, taking substantial profits.



Other visible **RED FLAGS** of fraud and corruption

Actual locations in the US of the purported “International Corporate Headquarters” of two shell companies

The top photo shows a basement entrance to a check cashing facility that was listed as the “international headquarters” for a consulting group that won contracts to design a number of construction projects.

The bottom photo shows a retail mattress store in a small town that was listed as the headquarters for a purported international trading and construction firm.



Is it just shoddy workmanship ... or fraud?

Poor quality works alone are not necessarily evidence of fraud, which requires proof of deliberate misconduct. But, as noted above, **the very early failure or deterioration of a roads** can be an indication of possible fraud, particularly the intentional failure to meet contract specifications and product substitution.

The basic steps to separate fraud from poor quality works are:

- Determine **when** the works were constructed - deficiencies in older works could be the result of lack of maintenance or other factors and are difficult to attribute to fraud;
- Obtain and review the contract specifications and drawings, to establish what work the contractor was required to do;
- Re-inspect or re-test the works to determine if the contractor in fact met the specifications;
- If not, to prove fraud, look for other evidence that the contractor billed for work that it **knew** did not meet specifications.
- Even without proof of fraud , the contractor can, of course, be required to complete or re-do the works to meet the specifications.



Steps to prevent fraud and corruption in project implementation: roads, buildings and equipment

Know the risks of fraud and corruption and their red flags

Set up systems to encourage and facilitate complaints, such as confidential hotlines

Train beneficiaries to recognize and report possible fraud

Do closer supervision and engage competent, *independent* inspectors

Do contract audits of suspect companies

Sanction offenders

