

## REFERENCE PROJECTS:

- **Hirakud dam**, Odisha (Under water)
  - **Jonk dam**, Odisha (Dry condition)
  - **Mandira dam**, Odisha
  - **NHPC Dhauliganga**, Uttarakhand
  - **Himachal Baspa Power Company Limited**, Himachal Pradesh
  - **Minimata Bango dam**, Chattisgarh (Under water)
  - **Murrum Silli dam**, Chattisgarh (Dry condition)
  - **Bidyadharpur barrage**, Odisha
  - **Tarkera reservoir**, Rourkela, Odisha
  - **Subarnarekha canal**, Bihar
  - **Paradeep port**, Odisha (Underwater Repairs)
  - **Rihand dam**, UP (Underwater Repairs)
- And many more...



## SIKA SOLUTIONS FOR DAM REHABILITATION

# REFURBISHMENT OF DAM STRUCTURE

## DURABILITY OF CONCRETE STRUCTURES

In the 21<sup>st</sup> Century, reinforced concrete structures are built to serve the next generations. Most dams are now designed to last more than 100 – 150 years.

## TYPICAL PROBLEMS IN DAMS

- Cracks in the body of the dams
- Leakage in intake gate
- Leakage in draft tube
- Leakage in inspection gallery
- Abrasion of spillways
- Damages to baffle blocks
- Damages to stilling basin



## Sika customised solutions for:

- GROUTING & FIXING
- REPAIR & STRENGTHENING
- PROTECTIVE COATING



## GROUTS

Grout is a unique blend of cements formulated to compensate for shrinkage combined with special ingredients to allow controlled expansion with maximum strength.

## TYPES OF GROUT

### Product wise:

- Cementitious
- Epoxy
- Polyurethane
- Ultrafine /Micro cement

### Application wise:

- Pourable
- Injectable

# REPAIR AND STRENGTHENING SIKATOP<sup>®</sup>, SIKAREP<sup>®</sup>, SIKAGARD<sup>®</sup>

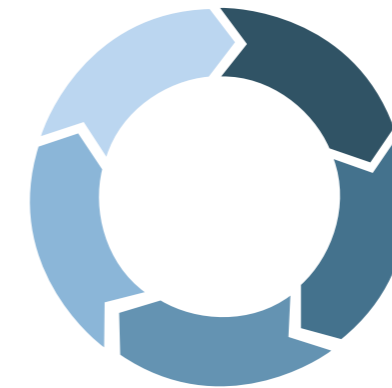
## 5 KEY STAGES IN CONCRETE REPAIR

### STEP 5

Future maintenance

### STEP 4

Select repair process



### STEP 3

Options and objectives of repair

### STEP 1

Assessment of the structure

### STEP 2

Diagnose cause of deterioration

## CONCRETE PROTECTION

## SIKADUR<sup>®</sup>, SIKAGARD<sup>®</sup>, SIKAR<sup>®</sup> ABRAROC<sup>®</sup> SR

## PRODUCTS FOR DAM REHABILITATION

- Low Viscous epoxy injection Resin for dry location - **Sikadur 52**
- Underwater free flow high strength epoxy resin grout - **Sikadur 53 UF**
- Under water epoxy putty - **Sikagard 694 F(I)**
- Rust Remover - **Sika RustOff-100**
- Anti Corrosive rebar coating - **SikaTop Armatec 108**
- Polymer Modified Repair Mortar - **SikaTop 122 HS**
- Epoxy Patching Mortar - **Sikadur 53 UF Mortar**
- Epoxy based bonding agent for old to new Concrete - **Sikadur-32LP**
- Micro Concrete (For Surface & Underwater Repairs) - **SikaRep Microcrete-3 & 4**
- Hydraulic Abrasion Resistant Mortar - **Sika<sup>®</sup> Abraroc<sup>®</sup> SR**
- UV resistant PU based Protective Coating for Concrete - **Sikagard PU (UR)**

