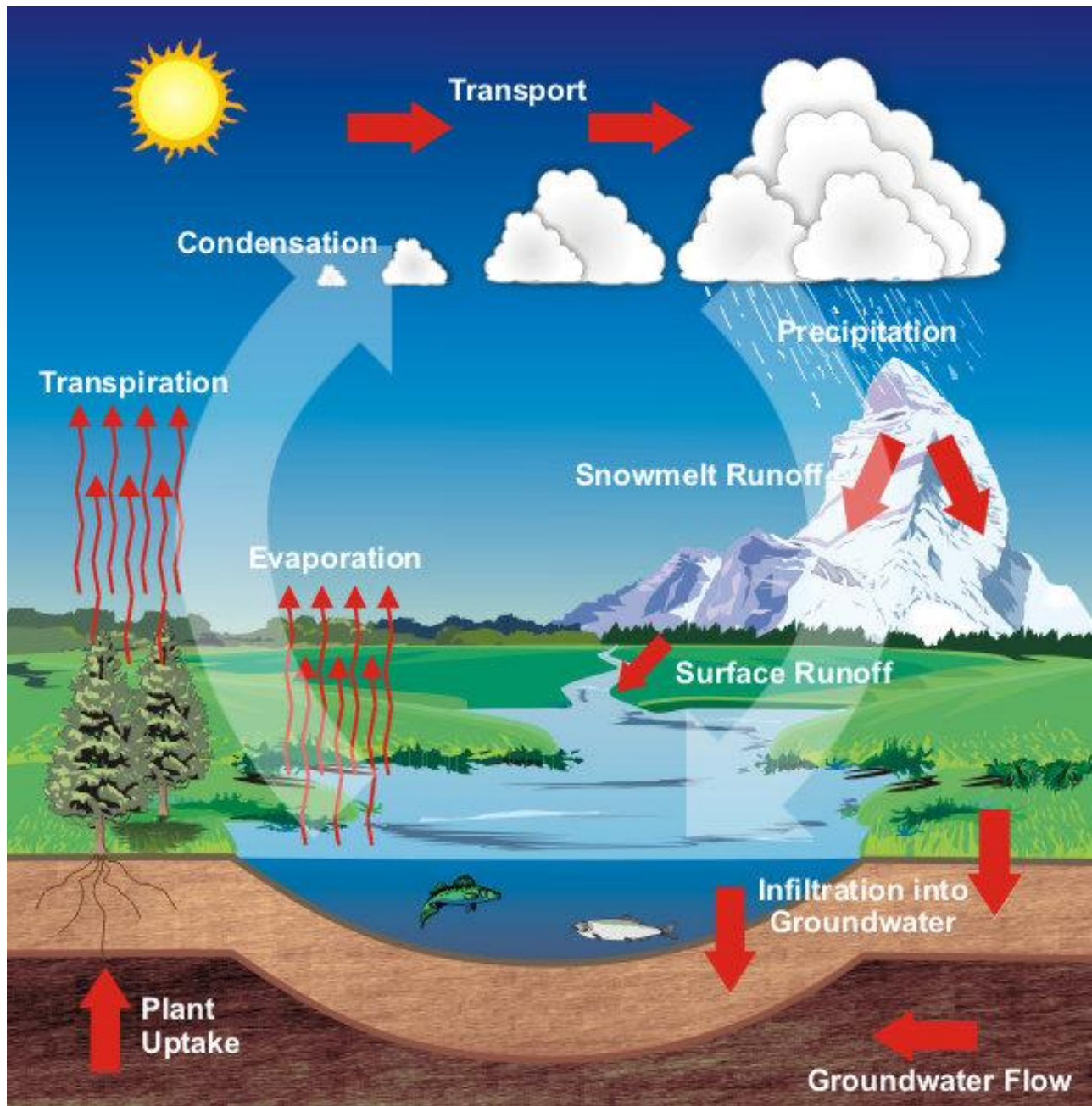


LIMPASAN



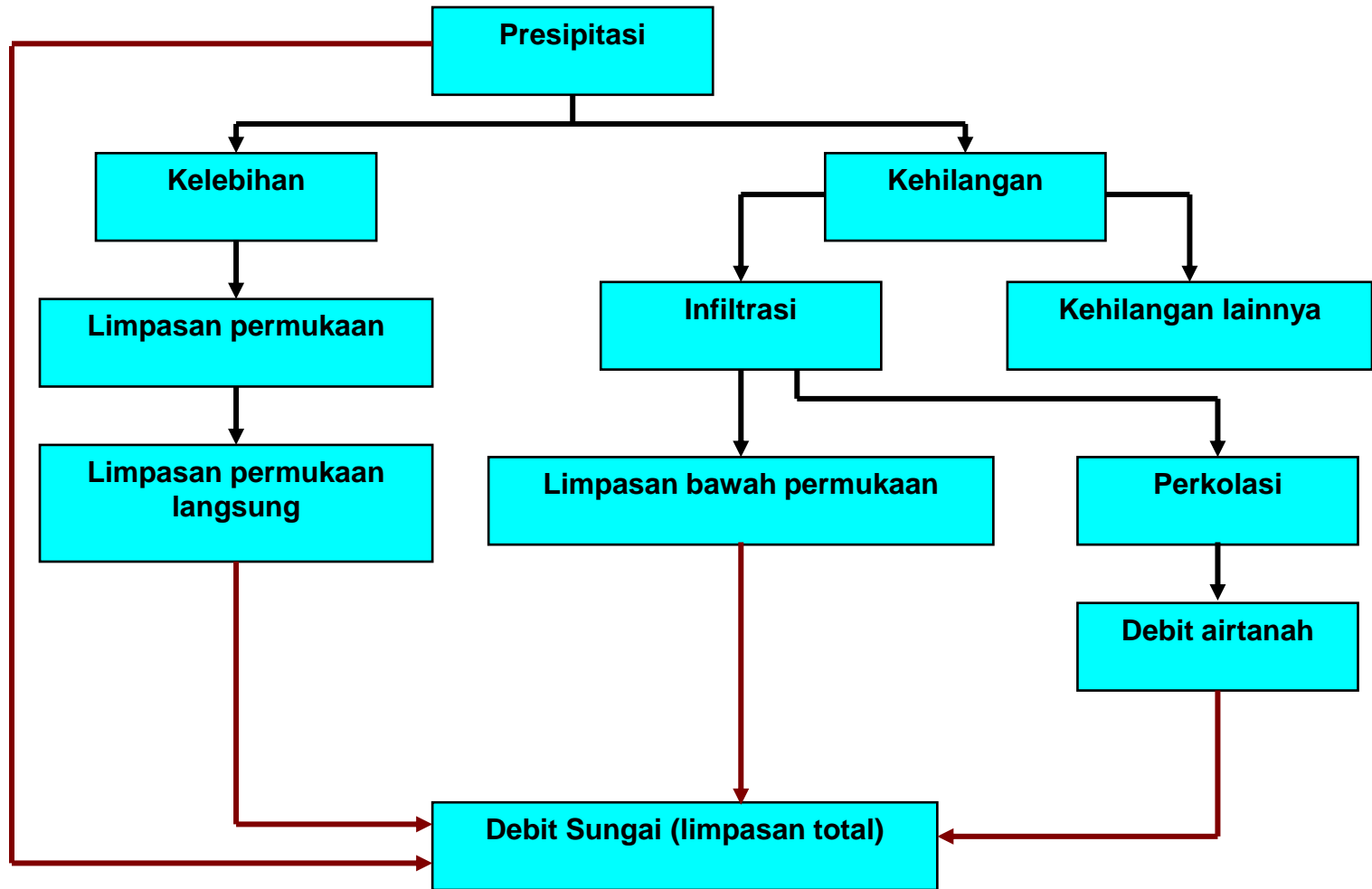
- Limpasan aliran
- Limpasan permukaan
- Limpasan bawah permukaan

- Surface runoff refers to water leaving a drainage area and flowing across the land's surface to a lower elevation.
- Surface runoff occurs because of an imbalance between evaporation and precipitation, over Earth's land and ocean surfaces.
- Areas with the most surface runoff are where there's high rates of precipitation and low rates of evaporation.

- When runoff flows on the ground, soil contaminants can be picked up (e.g. pesticides and fertilizers), that become part of the overland flow.
- Soil characteristics, plants and animals, and slope angle are natural factors that control how much precipitation is converted to runoff, and the time it takes for the runoff to enter a stream.

- Overlandflow: limpasan permukaan sebelum masuk system sungai. Merupakan bagian dari hujan yang mengalir di permukaan tanah

Proses Runoff



Faktor yang mempengaruhi limpasan

- Volume total limpasan
- Distribusi limpasan

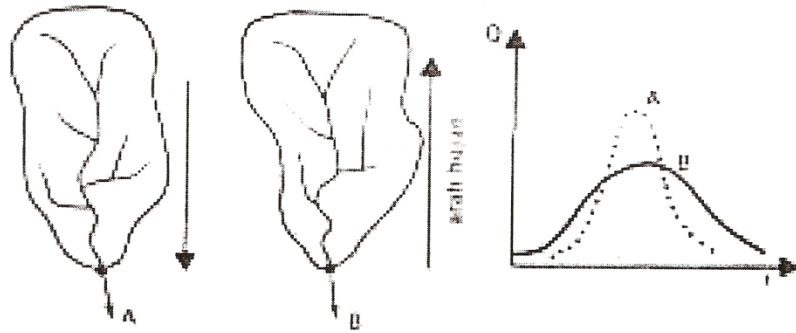
Volume total limpasan

- Faktor iklim
 - Banyaknya presipitasi
 - Banyaknya evapotranspirasi
- Faktor DAS
 - Ukuran DAS
 - Tinggi tempat rata-rata DAS (orografis)

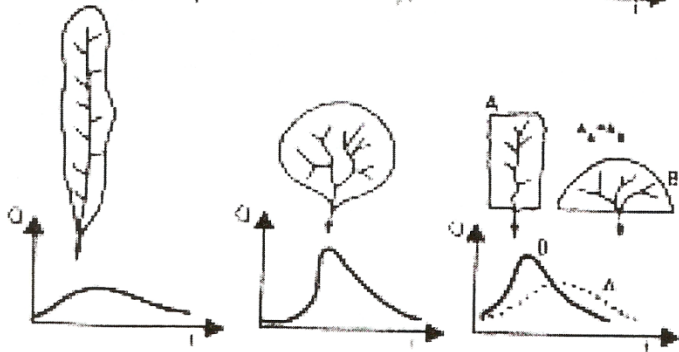
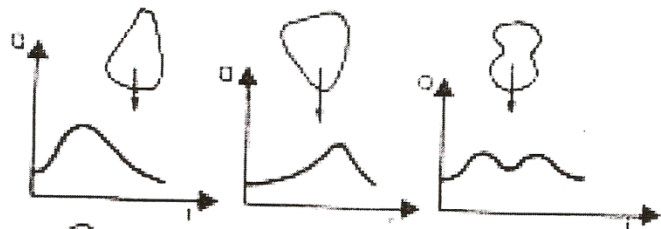
Distribusi limpasan

- Faktor meteorologis
 - Presipitasi(intensitas, lama, agihan kawasan, agihan waktu, arah hujan, frekuensi)
 - Meteorologis (radiasi matahari, suhu, kelembaban, v, tekanan atmosfer) yang mempengaruhi evapotranspirasi
- Faktor DAS
- Faktor pengaruh manusia

- Faktor DAS
 - Topografi (bentuk, kemiringan)
 - Geologi (permeabilitas dan kapasitas akifer)
 - Tipe tanah
 - Vegetasi
 - Penutupan vegetasi di atas permukaan lahan
 - Penutupan tanaman pada saluran
 - Jaringan drainase (Dd, urutan/tatanan sungai)



Arah Hujan

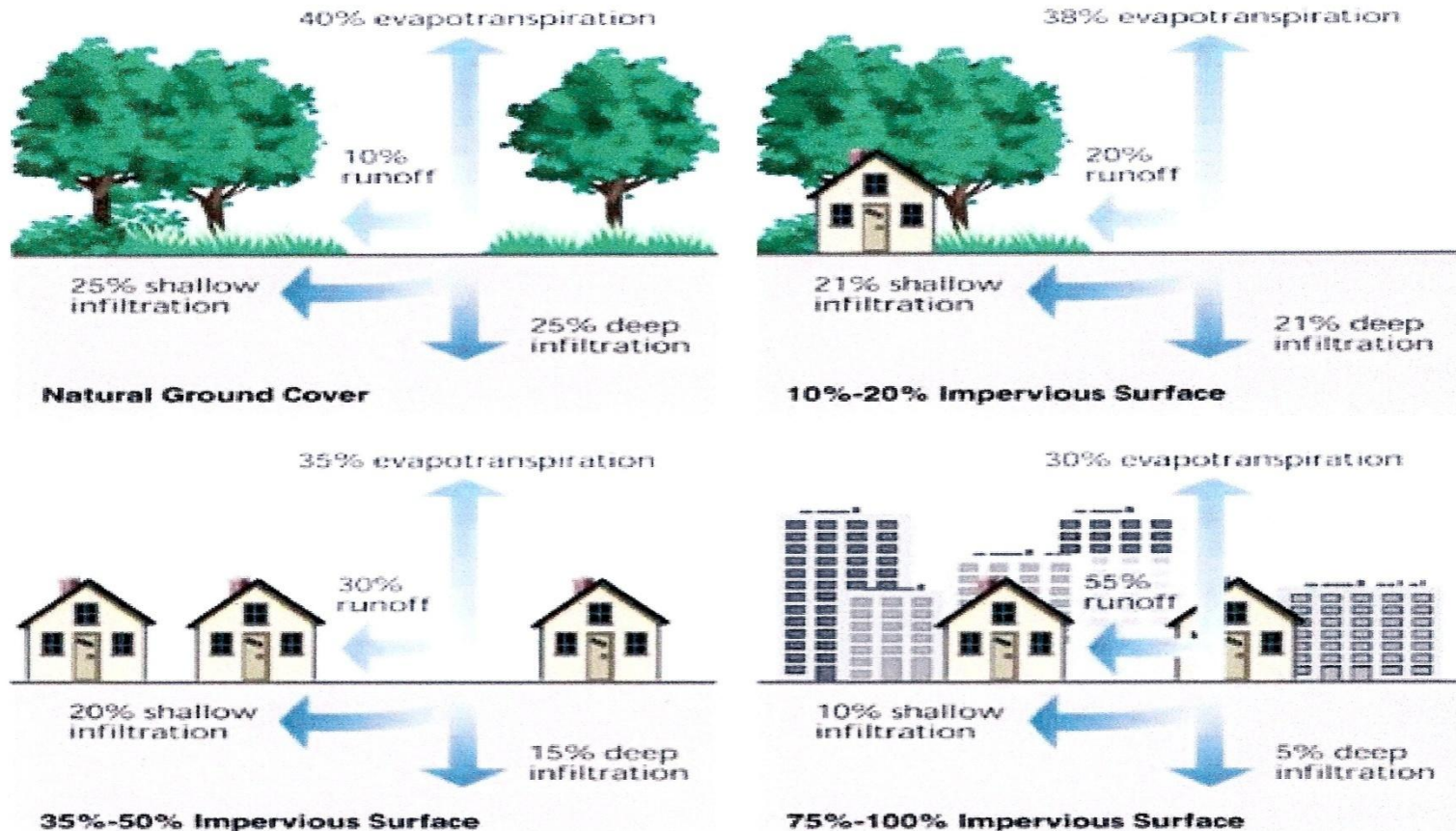


Bentuk DAS

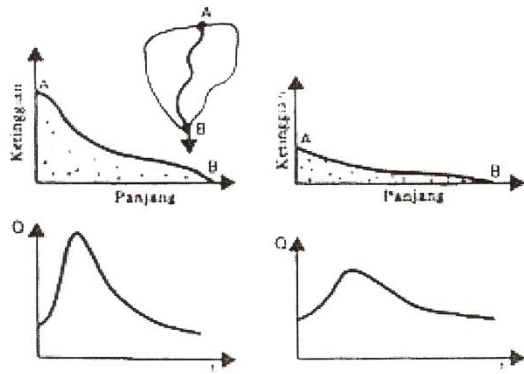
- Faktor manusiawi
 - Struktur hidrolika (bangunan air)
 - Teknik – teknik pertanian
 - Urbanisasi, pembangunan

Perubahan terhadap evapotranspirasi, runoff dan infiltrasi

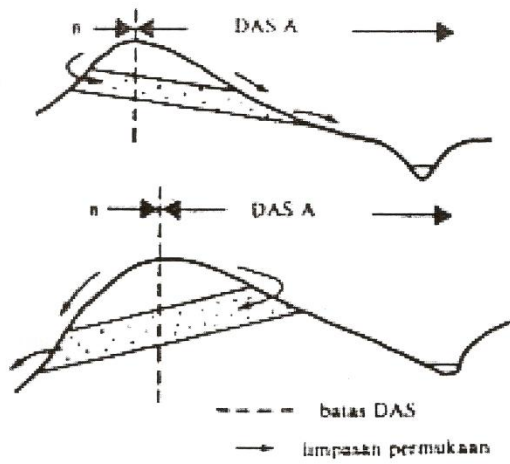
creeks now enters the stream all at once.



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation. Fig. 3.21 In Stream Corridor Restoration: Principles, Processes, and Practices (10/98). By the Federal Interagency Stream Restoration Working Group (FISRWG)(15 Federal agencies of the U.S.)



Topografi



Geologi